

IT-014 Health Informatics Committee

Australian Delegation Report – HL7 International Working Group Meeting

September 2009



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Author: Heather Grain, IT-014 Health Informatics Committee Chair

With Input from Australian Delegation and other employer funded Australians at the meeting:

- Andy Bond (NEHTA)
- Stephen Chu (NEHTA)
- Tina Connell-Clark (NEHTA)
- Richard Dixon Hughes (Delegate)
- Jane Gilbert (Delegate)
- Heather Grain (Delegate)
- Grahame Grieve (Jiva Medical)
- Hugh Leslie (Delegate)
- Vince McCauley (Delegate)
- Klaus Veil (Delegate)
- Max Walker (DHS Victoria)



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1 Introduction

The benefits that the Australian Healthcare Community derives from Australian representation at international meetings such as this HL7 International Working Group Meeting are significant and ongoing. It is recognised that it is vitally important to ensure that an Australian national position is represented at such meetings. The most effective way of achieving this is to ensure that a delegation is comprised of the appropriate mix of skills and expertise in order that priority areas are comprehensively addressed.

The Australian delegation at the HL7 meeting in September 09 also included representatives from NEHTA, and from Department of Health – Victoria, as well as members attending on behalf of their employer organisations. The contributions of delegates and other representatives in the Australian team were invaluable. This collaborative approach represents a very positive step in the national and public interest and allows the achievements of the delegation to be enhanced through mutual backup, support and input.

This report identifies priority areas for strategic engagement from all relevant parties who have an interest in the national e-health agenda and quality/safe health information management in Australia and an update on areas identified in previous reports as requiring ongoing input.

This report provides an outline of the activities of HL7 internationally, the important actions and messages for the Australian Healthcare Community and considers the capacity of the Australian Delegation to engage in HL7 activities thereby highlighting the issues relevant to achieving the defined objectives for international standards participation and influence at HL7.

This report is produced as a result of the input of the Australian Delegation and in particular those delegates co-funded by the Department of Health and Ageing without whose support Australia's contribution and ability to respond to the issues discussed here would be severely hampered.

Information is presented by topic and areas of specific concern to Australian stakeholders are highlighted and appropriate action should be considered by those stakeholders. Information is provided for contact to Australian expertise in each area for those who would like further information or to participate. Many of the issues will be discussed in detail at upcoming IT-014 subcommittee and working group meetings which are open to all interested parties.

For details of IT-014 subcommittees and working groups contact Andrew Caswell of Standards Australia (andrew.caswell@standards.org.au).

2 The Working Group Meeting International Attendance

Analysis of registration documentation showed that this meeting had 514 participants from 26 countries. There were 13 Australians at this HL7 meeting most of whom have contributed to this report. The funding source for these delegates is indicated in Table 1 below.

Table 1 Delegation by funding source

Funding Source	Number	Change from Previous meeting
Full funding by employer: Private	1	-1
Full funding by employer: States/Territories or National Initiatives	5	+1
Part funding – DOHA through Standards Australia contract.	7	-2
Total:	13	-2

The DOHA funded delegates were selected through an independent panel process jointly with NEHTA, DOHA and Standards Australia. The delegation was affected by the inability of some experienced participants to attend but the addition of a highly qualified first time attendee in the Australian delegation provided new input and built the expertise of the community. The delegation's capacity to deliver the intended outcomes of participation, information distribution back in Australia and to influence developments to support Australian requirements is enhanced by a balanced delegation of experienced people along with "new blood" who can both challenge the processes and increase the pool of understanding of these complex issues in Australia.

Figure 1 indicates the investment being made by the international community to participate in, learn from and influence the development of standards at HL7. The figures shown represent attendance by country at this meeting and averaged for over the three meetings during 2009. This shows significant increase in involvement from Canada, and ongoing strong participation from the UK, Japan and Australia in a strong attending position and with consistently significant investment from member countries of the European Union.

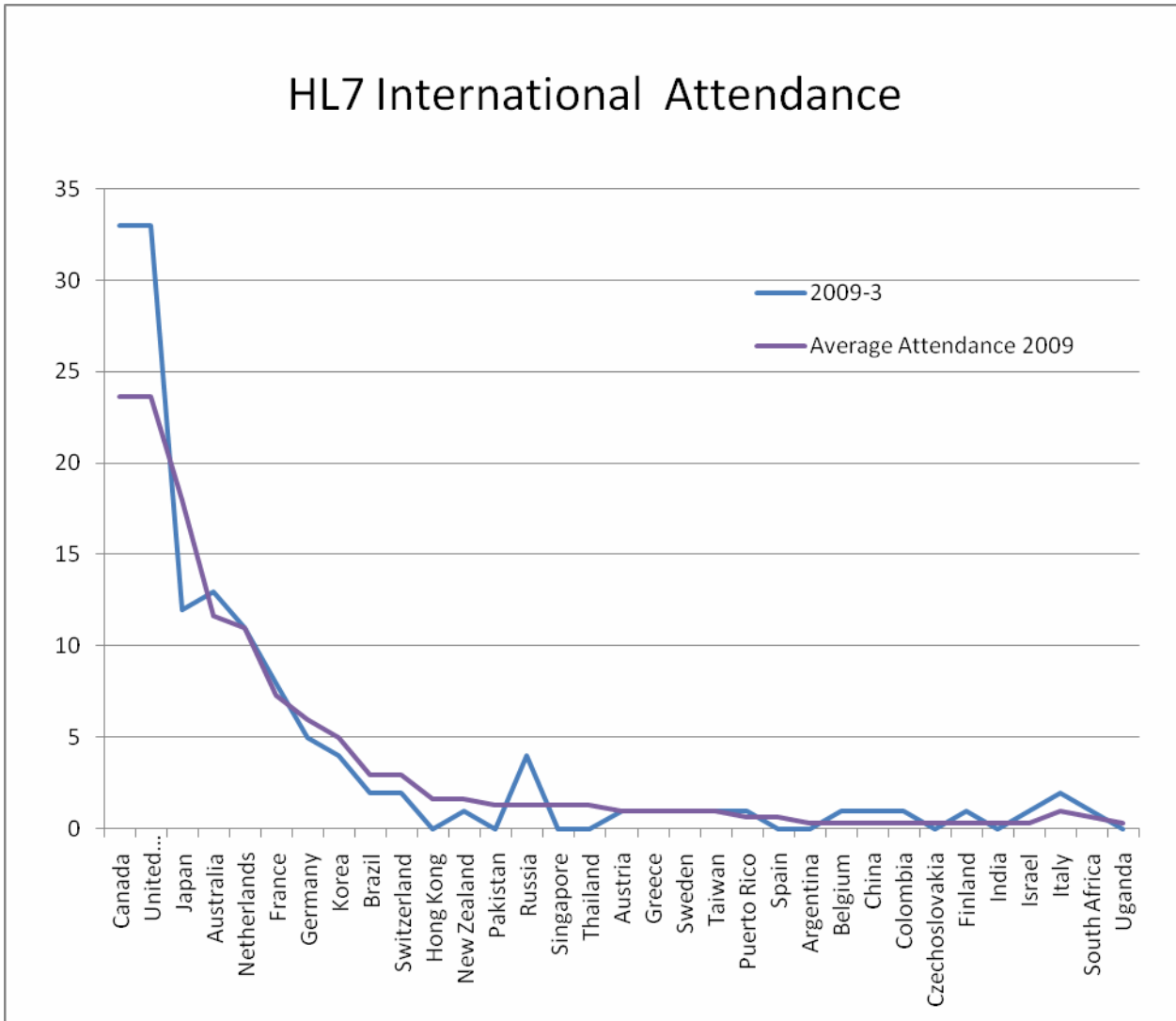


Figure 1 International Attendees <<<Russia had 5 delegates>>>

These international attendees are largely funded to attend by their employer, or they are funded as employees or consultants to national programs to influence HL7 developments, and return expertise to their own country. This fiscal support does not negate the voluntary nature of much of the work which is done on weekends and evenings, out of work time, but does indicate the value attached to the activities by employers and national programs.

USA traditionally has the largest number of attendees; however the international meetings and influence, and their government changes this year have impacted their attendance. This meeting attendance from the SA was back to 'normal' levels. Table 21 shows the influence of USA attendance on total attendance for the meeting.

Table 2 USA Attendance

	September (USA)	May (Japan)	January (USA)
USA attendance	373	78	234
Total attendance	514	221	343
% of USA attendees	72.6%	35%	68%

Previous Action results:

- Following previous recommendations support for the Australian delegation has continued and the opportunity will exist to extend and improve knowledge and expertise in this area through Australia's holding an HL7 international meeting in Sydney in 2011.
- Ongoing delegation support is appreciated and required to continue progress in this area.
- Improvements in the delegate selection process and transparency have occurred and will continue to be monitored for ongoing improvement.

Proposed Action: strategy for engagement with and support for the HL7 international meeting should be considered by health care organisations, programs and jurisdictions. Consideration of the priority requirements of stakeholders should be given to identify potential educational opportunities (for delegation feed back into these organisations and programs).

3 Meeting Logistics

HL7 International Working Group Meetings cover 7 days, with formal meetings occurring from 8am start to 5pm and 10pm (and sometimes later) finishes daily. There are additional executive meetings on the Saturday which are not shown here. The meeting is truly a Working meeting, rather than a conference, each of the groups identified in Table 3 meet to develop, discuss and improve HL7 standards, processes, implementation guides and to determine the most effective way to meet the needs of the stakeholders at the meeting and in the community. Though community engagement outside the meetings is strong (through regular, often weekly teleconferences) the ability to influence outcomes requires physical presence at the meeting.

Table 3 Meeting Schedule highlighting areas of major Australian interest

	Sun	Mon	Tue	Wed	Thur	Fri
Affiliates Council	X				X	
Architectural Review Board (ArB)	X		X	X	X	
Board of Directors		X				
Clinical Interoperability Council					X	
Clinical Statement				X		
Community Based Collaborative Care		X	X	X		
Education		X	X		X	
Electronic Health Records	X	X	X	X	X	
Electronic Services				X		
HL7/CEN/ISO	X					
HL7 meeting for nurses				X		
Implementation conformance		X	X	X	X	
Implementation Technology Specification				X	X	
Infrastructure and Messaging				X	X	
Marketing Council		X			X	
Modeling and Methodology	X	X	X	X	X	
Orders and Observations		X	X	X	X	
Patient Administration		X	X	X	X	
Patient Care		X	X	X	X	X
Patient Safety		X	X	X	X	
Pharmacy		X	X	X	X	
Process Improvement		X				
Public Health Emergency Response		X	X	X	X	X
Regulated Clinical Research Information Management		X	X	X	X	
Security			X	X	X	
Services Oriented Architecture		X	X	X	X	
Structured Documents		X	X	X	X	X
Templates		X				X
Tooling	X		X		X	
Vocabulary	X	X	X	X	X	X

Table 3 shows some of the larger meeting groups of the 63 separate work groups, committees, Board and Council meetings. Tutorials are also offered and these are of great value both to new comers and to older hands, to bring them up to date on generic changes made that may not be discussed in their individual committee areas (eg vocabulary submission requirements). Shaded areas indicate groups where items of major Australian interest are being discussed. The number of concurrent sessions makes it impossible for a small delegation to effectively follow the issues and to influence change. It is noted that delegates funded by their employer, or individually to international meetings have no obligation to work with or relate information back to the Australian delegation, though some have done so in the past. It is clearly desirable that there be a cohesive Australian position. The size of the delegation and the reduction in the number of sessions held assisted in our capacity to cover the most important requirements of Australia.

4 HL7 International

This section provides an overview of HL7 organisational activities.

All slide decks presented at the plenary and general sessions can be downloaded from the HL7 website at: http://www.hl7.org/search/viewSearchResult.cfm?search_id=61091&search_result_url=%2Fdocumentcenter%2Fpublic%2Fcalendarofevents%2Fwgm%2Fatlanta092009%2FGeneral%5FSession%5FPresentations%2Ezip

These include the CEO's report, CTO's report, Chairman's report on the Board meeting, Affiliate Directors' reports and three of the four plenary presentations.

4.1 Australian Leadership Positions at HL7 International

Leadership Positions held by Australians in the HL7 International Community are identified in the table below. *Note: This list does not include the many working group / committee memberships of the Australian team members.*

Working Group / Committee	Position	Status	Person
Structured Documents (CDA)	Interim Co-Chair	Elected this meeting	Grahame Grieve
Advisory Council to the Board of HL7 International	Appointed Member	Ongoing	Richard Dixon Hughes
Affiliate Due Diligence Committee	Appointed Member	Ongoing	Klaus Veil
Architectural Review Board	Appointed Member	Appointed this meeting	Andy Bond
	Appointed Member	Ongoing	Grahame Grieve
HL7 International Grants and Contracts Infrastructure Committee	Appointed Member	Ongoing	Richard Dixon Hughes
Organisational Relations Board Committee	Appointed Member	Ongoing	Klaus Veil
Product Strategy Task Force	Appointed Member	Appointed this meeting	Richard Dixon Hughes
Community Based Collaborative Care Working Group	Co-Chair	Ongoing	Max Walker
Conformance Working Group	Co-Chair	Ongoing	Jane Gilbert
Modeling and Methodology Working Group	Co-Chair	Ongoing	Grahame Grieve
Patient Care Working Group	Co-Chair	Re-elected this meeting	Klaus Veil
V2.x Publishing Working Group	Co-Chair	Re-elected this meeting	Klaus Veil
Vocabulary	Co-Chair	Ongoing	Heather Grain

4.2 HL7 Strategic Issues and Direction

Andy Bond, Richard Dixon-Hughes, Heather Grain, Klaus Veil

At various points during the week, including at meetings of the Board, the International Council, the Technical Steering Committee (TSC) and the general membership, the Chair of HL7 (Prof. Ed Hammond), the CEO (Dr Charles Jaffe), CTO (John Quinn), the TSC Chair (Charlie McCay) and others gave reports on some of the strategic issues and directions being addressed by the HL7 Board, TSC and executive management team. These include:

- Continuing efforts of HL7 to effectively participate in and contribute to the recent US Stimulus and health reform packages - with a total of US\$34 billion to be spent on stimulating the uptake of health IT. Recent discussions between the CEO of HL7 and the Office of the National Coordinator (ONC) and the appearance of Dr David Blumenthal as a keynote speaker at the Plenary session of this meeting bode well for acceptance of HL7 and its role as a predominant force in eHealth standards.

- Efforts to provide the HL7 community with sustainable and affordable tooling for both standards development and standards implementation.
- The continuing issue of the relationships and relevance of HL7's four major standards: V2.x V3, CDA and web services - leading to a Product Strategy Task Force. (see section 7 below)
- Further development and effective implementation of the HL7 Services-aware Enterprise Architecture Framework ("SAEAF") - discussed in some detail in reports on the Vancouver and Kyoto HL7 WGMs
- Giving greater focus to the needs, participation and support of eHealth regulators and profiler/enforcer organisations (PEOs) (eg national programs and certification organisations), while retaining the relevance of HL7 to traditional stakeholder groups - vendors, health care providers (and its Affiliates).
- As reported by the Treasurer, since 2006, there has been a steady decline in membership and revenues for HL7 inc. This financial year and next, there is expected to be a loss of nearly USD\$900k which will reduce operating reserves to the minimum 6 months required by the Board.
- Developing a standing capability to undertake high quality professional work for major stakeholders through exploitation of contracting and consulting opportunities - leveraging the skills of the broader HL7 community - while seeking to avoid competing with HL7's own support base
- Getting more effective and meaningful collaboration with other Standards Development Organisations (SDOs) and the conduct of joint work - in the international standards arena, particularly through the Joint Initiative Council (JIC) and, in the USA, through the SCO (SDO Charter Organisation) and ONC-sponsored committees.
- In the area of Vocabulary - strongly linked activities and specific joint project developments between ISO, IHTSDO and HL7
- The progressive transformation of HL7 into a more international SDO and identification of how the significant interests of members in the USA should be reflected within the organisation and structure of a more international HL7.

Where, relevant, these points are further elaborated in the report details below.

Proposed Action: Australia to move within the HL7 Affiliate community to have Affiliates recognised and consulted as "HL7 Stakeholders".

Action by: HL7 Australia, Co-Chairs and delegate attendees to the Affiliates Council at future Work Group Meetings.

4.3 CEO Report

R. Dixon Hughes, Vince MacAuley, Max Walker and K. Veil

The CEO of HL7, Dr Charles ("Chuck") Jaffe MD, PhD, presented reports to the Affiliates Council on Sunday 20 September, to the general membership on Tuesday morning and to the HL7 Board at the Board meeting on Tuesday afternoon. In these reports he highlighted the following points of importance to HL7 and its Affiliates.

The CEO made 2 key points regarding recent trends in Healthcare (mainly related to the US domain)

- Change in world – increased poverty in the US & associated impact of healthcare. Aim is to lower the barriers though collecting data to improve care & research.
- Aging population & a sense of entitlement to healthcare. Need a better way to manage healthcare.

4.3.1 The HL7 Roadmap

The initial HL7 Roadmap identified a 3-year horizon and totalled some 45 pages. It has been decomposed into a short strategic overview focussing on key initiatives needed to achieve substantial progress against five strategic imperatives and a schedule of strategic projects targeted at realising the desired outcomes.

As an organisation, HL7 has had to balance the progression of its roadmap activities against the need to respond appropriately to a rapidly changing external environment driven by shorter-term needs of key stakeholders (particularly in the US, but also in Europe and emerging regions).

The Roadmap Task Force has responsibility for maintaining the HL7 Roadmap in light of experience and changing demands in both the internal and external environment. This involves the release of periodic revisions (typically annually) with the current focus being on:

- A high-level approach including reviewing and, where necessary, redefining the high level strategies set out in the Roadmap.
- Continuing to align the Roadmap with the HL7 products and services catalogue and the projects being approved by the Technical Steering Committee (including SAEAF activities)
- A stakeholder survey to obtain feedback on the extent to which their needs are addressed by the Roadmap strategies.
- Production of the updated 2010 Roadmap

As part of its roadmap maintenance activities HL7 has recognised that it needs to sell itself, its products and its strategies more effectively to major stakeholder groups and to take notice of their feedback. The stakeholder survey is part of this process.

Implications for Australia: Australian interests including HL7 Australia, NEHTA, MSIA, IHE Australia, IT-014, jurisdictions and AHML should review the HL7 Roadmap, work together in developing Australian viewpoints and seek to participate in the stakeholder surveys, with the objective of ensuring Australian needs and priorities are reflected in HL7's strategic plans as reflected by the HL7 Roadmap.

Proposed Action: IT14, HL7 Australia and NEHTA to collect input and if appropriate conduct a workshop to confirm and coordinate priorities and responses.

Action by: IT14, HL7 Australia and NEHTA

4.3.2 USA News

The Obama initiated US\$40 Billion Health IT initiative is progressing rapidly. Payment will be based on "meaningful use" of Health IT based on the recommendations of the e Health IT Standards Committee established under US Government regulation.

The eHealth IT Standards Committee has now made its first recommendations of standards to support payment of incentives to clinical service providers under the ARRA/HITECH laws. HL7v2.5.1 and CDA (and CCD) are both prominent; however HL7v3 messaging is not being endorsed (at this stage). Over the medium term SNOMED CT is proposed as the vocabulary for expression of problems, procedures and some laboratory findings (along with LOINC and UCUM) and RxNorm for medications. Over time there will be an increasing force in support of clinical decision support and production of an increased array of quality measures.

A controversial push from competitors to HL7 for support of the unstructured non-HL7 CCR format as an alternative to CCD/CDA was not accepted.

HL7 is positioning itself to be the Primary provider of Standards for this initiative.

4.3.3 Financial Planning Committee

The Financial Planning Committee (which should not be confused with the Board Finance Committee) is examining opportunities for extending HL7's revenue base, activities and effectiveness through closer relationships with and better understanding of the needs of key stakeholders, including national programs in the US, UK and Canada.

For more background on events leading up to the formation of this committee refer to sections 5.4.2 (Marketing Plan 2009-2010) and 5.4.3 (HL7 Financial Plan for the US) of the Australian delegation report on the May 2009 HL7 WGM in Kyoto. The work arises out of HL7's strategy of working more directly with Profiler/Enforcer Organisations (PEOs), with the following recent initiatives being reported at this meeting.

HL7 Proposal to ONC/DHHS

- Through the Office of the National Coordinator (ONC) for Health IT (David Blumenthal's office) a proposal has been put to the US Department of Health & Human Services to provide consolidated ongoing funding for HL7 activities.

- The key objectives are to improve and better support required standardization processes, achieve operational efficiencies and deliver required standards more quickly.
- Another aspect of the HL7 proposal is achieving greater harmonisation in the activities of HL7, IHE, NCPDP, X.12, LOINC, ASTM, DICOM, CDISC and others in addressing the needs for eHealth standards in the USA.
- The original HL7 proposal was submitted some months ago. Up until 15 September the ONC was preoccupied with developing a regulatory framework to identify "meaningful use" of an EHR system for reimbursement under practice incentive programs. HL7 considers it extremely positive that one of the ONC's first activities on completing this work was to come back to HL7 with a series of more detailed questions about its proposals.
- The US Government normally requires work that it funds to be openly available at minimum cost and without restrictions. This may challenge HL7's business model in terms of its ability to charge for HL7 standards developed under an ONC/DHHS program - alternatively, there may be opportunities to compensate it for the value of existing intellectual property,
- Apparently, IBM has also asserted patent rights over software for migration from v2 to v3. Although it has said it does not intend to assert these rights, many members, such as the National Institutes for Health (NIH), which are developing a migration tool, are concerned.
- HL7 is aware that a successful bid to ONC/DHHS to support eHealth standards development in the USA requires HL7 to also have a model for addressing international requirements
- ONC is being engaged in dialogue about how these conundrums may best be approached.

Extension of grant from the Rockefeller Foundation

- In partnership with the WHO, American Medical Informatics Association, ONCHIT and others, HL7 has been participating in work to develop and demonstrate an interoperability framework to overcome fundamental problems of information re-use in the Global South economies.
- Following successful completion of the Bellagio Conference in Italy, involvement of Ugandan representatives at the January 2009 HL7 WGM and other initial activities, an extension of Phase I funding has been requested, along with funding for Phase II activities, aimed at a follow-up conference in Rwanda and more work on standards and interoperability architecture.
- The Phase II proposal is under review at the Rockefeller Foundation.
- Funding obtained for these purposes is strictly for the intended purposes and does not relieve pressures on HL7 general operational funds. In fact, they probably place additional strains on HL7's resources (but for a good cause)

Gates Foundation

An approach to the Bill & Melinda Gates Foundation is also planned to support additional projects in developing countries.

4.3.4 Outreach

Outreach to upstream contributors to HL7 work and downstream users of HL7 standards and services continues to be an important function of the executive team with the following being noted as being of current significance.

Preference for HL7 standards in US health reforms

In the US, HL7 has established and maintained contact with the Office of the National Coordinator for Health IT (ONC) and the committees set up to advise it. So far, their decisions have favoured HL7 standards, particularly where the HL7 standard is supported by IHE profiles; however, while CDA and CCD has been strongly supported, there has been little appetite for HL7v3 messaging. In his report, the CEO addressed many questions arising from ONC activities and these matters have been separately reported below under the heading "Standards Support for eHealth Reform in the US".

It was particularly noted that properly structured CDA has been supported for clinical summaries, encounter notes, reports and allergies and that objections seeking the inclusion of relatively unstructured CCR representations were not accepted.

BRIDG

CDISC, National Cancer Institute (NCI), FDA and other regulatory agencies are looking toward the seamless interchange of clinical and research data via implementation of the BRIDG Model -with CDA as the preferred

approach. HL7 has actively supported CDISC in becoming a member of the JIC and progressing the BRIDG model toward becoming potential ISO international standard through ISO/TC 215.

National Council of Prescription Drug Pharmacies (NCPDP)

When faced with the delivery (and documentation) of primary care delivery through clinics in retail pharmacy outlets, the NCPDP approached HL7 to assist it establish eHealth interoperability standards for clinical encounters based on CDA.

This was one of the key drivers behind the SDO Charter Organisation (SCO) being formed in the USA as a voluntary commitment by SDOs to foster harmonisation. HL7 has noted the synergistic nature of this relationship - HL7 wants its standards used but does not seek to capture or support NCPDP client base - NCPDP does not want to compete with HL7 in standards development.

European eHealth Initiatives

The Europeans are now achieving significant progress through several major eHealth activities where the relevance of HL7 standards for eHealth interoperability (along with DICOM, SNOMED CT and IHE profiles) is increasingly being recognised based on their global acceptance. Of particular interest are epSOS (European Patient Smart Open Services), Calliope and M/403 eHealth INTEROP. As a result, European companies and regulators are now seeking greater access to HL7 and opportunities for collaboration.

Senior HL7 personnel have recently been actively participating in European eHealth events along with senior representatives of the European Affiliates (notably Bernd Blobel and Robert Stegwee). There was a successful HL7 stream at the XXII International Conference of the European Federation for Medical Informatics in Sarajevo and a request to be involved in a major upcoming eHealth event in Spain (to commemorate Spain taking on the EU Presidency).

To facilitate participation in European activities, HL7 is setting up a European Office (reported in more detail below under "Internationalisation of HL7 activities").

Clinical engagement – CIIC

Clinician engagement initiated through CIIC continues to be positive but AHRQ funding for a proposed second face-to-face meeting of the CIIC planned for October has fallen through, although further funding may become available in 2010. The next CIIC meeting will now be held early in the New Year with back-up funding sources being actively sought. CIIC issues to be addressed include clinical governance, outreach, developing and implementing the CIIC Charter, and planning of future meetings. Progressing CIIC activities appears to have taken a back seat to dealing with the emerging needs of the US national health reform agenda for standards - with a webinar and several planning meetings having been cancelled.

Nevertheless, HL7 is still actively looking for people with a clinical focus to participate and is particularly keen to secure input from outside North America. Australian contributions would be welcome.

The project is seeking funding but moving ahead with some of the projects – putting together sets of data elements using a standard Excel spreadsheet format. They are trying to create a document to make the case for a universal unique identifier.

The principal vehicle for HL7 strategic engagement clinical community is through the HL7 Clinical Information Interchange Collaborative (CIIC). The CIIC was formed as an outcome of HL7's "Bridging the Chasm" event, held on 20 April 2009, which brought together representatives of over 100 different clinical speciality organisations to have an open exchange to inform the international informatics community of their needs. While mainly attended by US professional societies, some also came from Europe, UK, Canada, Asia and Latin America.

National Quality Forum (NQF)

Detailed discussions have taken place between the leadership of NCQ and HL7 over the standards and technology needed to implement the ever-evolving content of national clinical quality measures into implementable specifications. Relations between HL7 and NQF are good with Janet Corrigan, CEO of NCQ giving a keynote address to the Atlanta meeting (reported separately) during which she highlighted the close inter-relationship between standards and quality measures. The two organisations are now trying to identify the next steps and develop a definitive work plan.

5 CTO Report

The CTO, John Quinn, reported to the Affiliates, the Board, the TSC and to the general membership, focussing on the following three main issues:

- The challenge and need for changes in HL7 as it moves towards a more international organization and the need to develop relationships and joint processes with other SDOs - particularly in the European context and to support activities of the Joint Initiative Council (JIC) and through the SCO (SDO Charter Organisation) in the United States.
- Progress with the HL7 tooling initiative. The need to develop new tooling remains a main issue affecting development, publication and implementation of HL7v3 standards (and CDA implementation guides). The total budget needed for all of the "like to have" integrated tooling is estimated at \$3.2m; however, the original "tooling" budget was only \$100K and almost all of it was committed to maintenance and operations, rather than development.
- Implementation of the SAEAF (Services Aware Enterprise Architecture Framework). HL7 efforts on SAEAF are currently focussed on delivering more consistent and usable documentation of SAEAF and its application. The ArB are working with other groups on "Alpha projects" to pilot application of SAEAF in the HL7 environment. IBM has kindly donated the use of its DITA publishing platform to HL7 to assist in the documentation task and a technical writer, Karen Smith, has been engaged to develop a full suite of technical documentation for review by years' end.

In his discussion of international activities, the CTO discussed the widespread confusion within HL7 about what are "joint" projects and how these are/or are not properly approved by HL7 as a member of the JIC. There are previously agreed bilateral "pilots" of joint work with ISO/TC215 as well as projects approved by the JIC the status of which with HL7 is still unclear. These include those put up at ISO meetings by individual HL7 members but without HL7 agreement. To set aside much of this confusion, HL7 is now putting information on its website about HL7's commitments to JIC joint projects and the adoption of HL7 standards by ISO/TC215:

- For information about HL7's collaboration with ISO and others through JIC:
<http://www.hl7.org/participate/isojic.cfm>
- For information on the JIC process stages:
<http://www.hl7.org/documentcenter/public/procedures/iso-jic/The%20JIC%20Process%20Stages.doc>
- For information on projects underway from HL7 for ISO and JIC approval:
http://www.hl7tsc.org/wiki/index.php?title=ISO_and_JIC_projects

There is still a need to establish processes for intake of joint work approved by the JIC, this is still not clear.

With regard to tooling, the CTO's comments are summarised more fully in section 36 below.

The CTO also gave a focussed presentation of the SAEAF - his core message was "*We are seeing SOA appear in the design of loosely connected inter-organization HIT networks as the desired way to interconnect widely distributed systems. SOA is particularly attractive when no one organization owns/controls all of the applications and platforms*". SAEAF is not specifically dedicated to healthcare, its approach is generic. Through its "behavioural framework" it also addresses previous problems associated with development of dynamic models to address workflow integration issues.

While SAEAF appears vitally important to HL7 long-term strategy, has been through one round of refinement and is being piloted on both Alpha projects and in conjunction with external projects at the National Cancer Institute (NCI) of the NIH, from the HL7 Board perspective, there is increasing impatience over the need for a simpler exposition of its concepts and requirements and more tangible results from real implementations.

Implications for Australia: SAEAF is a major strategic step for e-Health architecture with the promise of encompassing V2.x, V3 and CDA - so we need to keep a close watch on its progress and success.

Proposed Action: Australia should investigate in more detail how SAEAF can be used locally.

Action by: NEHTA

6 Internationalisation of HL7 activities

R. Dixon Hughes, K. Veil

Balancing the interests of the growing international HL7 community against those of the traditional membership base and major stakeholders in the USA remains a complex problem for HL7 but is seen as critical to the organisation's growth, stability and relevance.

Questions surrounding the appropriate structure and organisation of HL7 as a truly international organisation have been on the table for several years and were considered at some length by the HL7 Board at its annual strategy retreat in July. The Board held a board-members-only session to consider several options, with the following further measures being announced to the general membership at the Atlanta meeting:

- HL7 voting changes have changed the number of votes for a national Affiliate from the previous maximum of 8 votes per country to 10% of membership!
- A global membership list is to be established to include members of Affiliates. This will assist to identify the true extent of the international membership and provide the records needed to support Affiliate member access to resources, financial planning and Affiliate voting entitlements.
- Affiliate agreements are being amended to reflect the changes. HL7 Australia has amended its agreement with HL7 to accept the changes.
- These measures, along with an increased focus on developing a more international focus at Board level brought the work of the OMOV (One-Member-One-Vote) committee under Michael Van Campen (Canada) to an end. The Board officially resolved to close the OMOV Committee and thank it for its work.
- HL7 Inc. will operate under the business name "HL7 International"
- The "Affiliate Council" is re-branded as the "International Council" and will have a separate US representative.
- The proposal to form a US Affiliate is not being progressed; however, a new internal HL7 Committee will be formed to represent US interests with a Chair elected by members in the USA. The Chair of HL7 USA will be the US representative at the International Council.
- Detailed investigation has revealed that there is no predominant business model among the HL7 Affiliate organisations, with each Affiliate offering a different bundle of services and capabilities at different pricing points - according to local needs. This places limits on the
- Progress with major eHealth standards activities in Europe (notably epSOS, Calliope and M/403 eHealth INTEROP) has led European agencies to seek greater direct collaboration with HL7. This was reinforced by engagement with EC officials and EU member states at the XXII International Conference of the European Federation for Medical Informatics in Sarajevo; however, participation in European committee activities is limited to European Member States and to representatives of European stakeholders.
- Following discussions with HL7 Affiliates in Europe, HL7 has resolved to set up an office in Brussels to represent HL7 interests in Europe and provide part-time local representation. "HL7 Europe" is not an Affiliate but will be an operational unit of HL7 International, initially funded by HL7 HQ, that will be governed by the chairs of the HL7 European Affiliates with its leadership being rotated among the European Affiliates.
- HL7 is also considering establishing representative offices in Latin America (in Buenos Aires or Brazil) and in the Asia-Pacific region (with Sydney being a potential candidate).

Implications for Australia: Australia's influence in the internal affairs and governance of HL7 International will be enhanced by growing the membership of HL7 Australia. It would benefit Australia to have the Asia-Pacific office of HL7 International located in Sydney and if this could be somehow promoted as a consequence of holding the 2011 WGM in Sydney.

Proposed Actions:

1. Continue encouraging membership of HL7 Australia underpinned by relevant membership benefits.
2. Monitor HL7 International plans to establish an Asia-Pacific office and engage with NEHTA and relevant Government agencies to encourage an Australian location.
3. Increase the local awareness that HL7 is international.
4. Identify the potential benefits, costs and likely benefactors to Australia and determine the potential national support for this activity.

Action by: Items 1 – 3 HL7 Australia

Item 4 – IT14 community, DoHA and NEHTA

7 HL7 Product Strategy

R. Dixon Hughes, K. Veil

Summary: A Board Task Force has been created to oversee a consultancy to investigate the current status, positioning, prospects and usage of the main HL7 Standards: V2.x. CDA and V3. Richard Dixon-Hughes has been co-opted to this Task Force.

Background: It is now 10 years since the release of HL7 version 3 and there is, as yet, no explicit or widely accepted transition plan from HL7v2 to HL7v3 for eHealth messaging. While commonly equated with messaging standards, HL7 has also been successful with CDA as a document architecture and is addressing the need for web services through SOA and the joint HL7/OMG HSSP project. It may also be significant that v3 messaging (as distinct from CDA) has only been implemented in a relatively few environments and at significant cost and has not been endorsed as essential under the new interoperability standards regime in the USA.

Following consideration at the Board Retreat in July this year, the Board of HL7 International resolved to develop a strategic plan to address v2, v3, CDA and product strategy issues. Funding was identified to engage a facilitator to run a strategic planning process in collaboration with a Board Task Force, generally in the following areas:

- Identifying and clearly stating the issues related to V2 messaging, V3 messaging, the role of CDA, the relationship between CDA and messaging and a range of associated questions about HL7's interoperability strategy, support of new technologies, the next generation of HL7 data interchange standards (including a possible v4), terminology bindings, templates, customer needs and gaps.
- Characterising HL7 customers, stakeholders, influencers and potential funding sources for new standards
- Agreeing the resulting issues and then investigating them through discussions with key persons both within and outside HL7 - including the Board of HL7 International, TSC members, Affiliates and a cross section of health service provider organisations and system suppliers.
- Identifying the options for dealing with these issues with detailed strengths and weaknesses
- Defining a set of concrete steps that vendors and implementers can depend on
- Creating a white paper addressing the above topics and others that might arise and providing input into action plans to be integrated into the HL7 Roadmap priorities and budget requirements
- Develop an overall funding plan including requirements and funding sources.
- Confirming the recommended directions with the Board of HL7 International, and
- Developing a communication plan for sharing these future directions and strategic plans with the membership of HL7 and the media.

Dr Stan Huff, MD, PhD, CMIO of Intermountain Healthcare, Utah and a member of the HL7 Board has been appointed as lead facilitator with staff support from Virginia Riehl. As a first step they are to review and refine the timelines, methodology and points to be reviewed. Quick turnaround is seen as being important, with significant progress to have been made (at least in terms of identifying the issues) by the January 2010 WGM in Phoenix.

The work is to be vetted and overseen by a small Product Strategy Task Force, comprising: Stan Huff (Chair), Ed Hammond (HL7 Chair), John Quinn (HL7 CTO), Rebecca Kush (CDISC), Richard Dixon Hughes (Australia), Hans Buitendijk (Siemens) and Frank Oemig (Affiliates).

Proposed Action: HL7, NEHTA and other Australian organisations having an interest in HL7 product strategy or wishing to be considered for consultation as part of the process are invited to advise Richard Dixon Hughes of their interest. He may be contacted by email: richard@dh4.com.au.

8 Other HL7 Board Matters

R. Dixon Hughes, K. Veil

The HL7 Board of directors met on Tuesday, 22 September 2009 from 3:30 pm to 11:30 pm. The meeting included a presentation from UK NHS CfH on its Logical Record Architecture (see below) followed by reports from the Chair, CEO, CTO and Treasurer, during which the following points were noted:

- The Board approved the establishment and composition of the HL7 Product Strategy Review for v2, v3, CDA and related questions. (see separate item on "HL7 Product Strategy"). Richard Dixon Hughes of Australia is a member of the Task Force assisting with the work.
- A Board Policy Committee was formed - to be chaired by Don Mon with Stan Huff, Hans Buitendijk, Richard Dixon-Hughes and Bill Braithwaite as members. The Committee has a remit to consider tactical issues (such as fast-tracking of work) and strategic issues (such as industry engagement).
- The One Member One Vote (OMOV) Committee was closed with thanks to the Committee's members and chair (Michael Van Campen).
- Helen Stevens Love (Secretary, International Council) was added to the Organizational Relations Committee to represent International Affiliates.
- New Board Advisory Council Appointments for 2010-11:
 - Chair: Dr John Tooker, MD, MBA, FACP, CEO of the American College of Physicians (replacing Sam Brandt)
(Dr Tooker has a strong connection with Australia, stemming from a year at RSHS in Sydney, while a medical student in the 1970's).
 - Janet Corrigan, CEO National Quality Forum
 - Mark Dente, MD, VP Healthcare Solutions, GE Healthcare; and
 - Molly Joel Coye, MD, CEO CalRHIO
- Ken Lunn (UK NHS Connecting for Health) and Dennis Giokas (CTO Canada Health Infoway) are being reappointed to the HL7 Board as CEO nominees for 2010-11. A third CEO-appointed Board Member (replacing Don Simborg) is being sought from within the US Office of the National Coordinator.
- John Quinn (CTO) has concerns about the disproportionate amount of HL7 bandwidth (and lack of proper control) associated with participation in harmonisation activities and needed to deal effectively with joint ISO and JIC work.
- The HL7 Web site has been updated and is operational in the new format.
- There appears to be some concern at Board level over the time it is taking to gain tangible improvements for HL7 from SAEAF. Working pilots were originally expected in time for review at the Atlanta meeting but the Board is looking for a clearer picture and results.
- Tooling. The move to OHT products for maintaining v3 artefacts will eventually become mandatory, so many more Work Group operatives will need to be trained and competent in these tools.
- The financial report was presented by Hans Buitendijk (Treasurer) - for more details see "HL7 Finance Report 20090914 - Plenary.pdf" in the General Session presentations available from the HL7.org website. The key points are:
 - For 2009, forecast operating revenues are US\$3.62 million, and operating expenses US\$4.6 million - a net operating loss of US\$0.98 million.
 - This year, HL7 is actually OK relative to its (deficit) budget. Revenue is about US\$70K behind budget but costs are being controlled
 - Individual membership has declined about 11%. Organisational and benefactor membership is down about 6%.
 - With around 500 delegates, the Atlanta meeting should be financially successful. Education events are also doing well.
 - The proposed budget for 2010 is: US\$3.64 million operating revenue, of US\$4.45 million operating costs - for a net US\$0.81 million operating loss.
 - By year-end 2009, HL7 is forecasting budget reserves equivalent to 8.3 months of operating expenditure
 - During 2010, reserves are budgeted to be reduced to 6.2 months - releasing additional funding for development of tooling.
 - Grants and contracts work in 2009 is markedly down to around US\$200K. This income is tied to specific activities outside general operations.
- HL7 forecasts for 2010 exclude any investment by the US-ONC; however, HL7 is having dialogue with ONC about this.
- Membership dues are to increase by 10% in 2010.

- A report was received from the International Working Group Assessment Task Force (TF), which is reviewing the process and success criteria for WGMs outside North America. The TF has developed a well-constructed methodology and is currently undertaking a survey. [See report under "Affiliates Council". This may have considerable impact on the Sydney bid for the WGM in 2011 depending on the criteria developed].
- Awards Committee for 2010 - Bill Braithwaite (chair), Thom Kuhn, Ted Klein, Tom de Jong, Vassil Peytchev, Karen Van Hentenryck.
- New Board Members for 2010-11. Becky Cush PhD, President and CEO of CDISC and Dr Bill Braithwaite, a former Treasurer of HL7
Michael Van Campen was also re-elected for a further two years as one of the two Board Members representing Affiliates.
- Internationalization of HL7. The Board considered this in closed session (open only to voting Board members and the senior executive team).
The subsequent public announcements and implications are reported above under "Internationalisation of HL7 Activities".
- Agreements. HL7 currently has Associate Charter Agreements or MOUs with: ADA, AHIP, ANSI, ASC-X12, ASTM, CDISC, CEN/TC 251, CHCF, Continua, DICOM, eHI, GS1, IEEE, IHE, IHTSDO, MedBiquitous, NCPDP, NAACR, and The Health Story Project.

Research & Innovation (R&I) Work Group

Ken Lunn (UK) put forward a paper to the Board based on his experience on other boards, suggesting that HL7 form an R&I Group able to seek out, evaluate and facilitate the introduction of new ideas and processes. The Board debated their value of this proposition noting the potential for confusion with existing pathways - what are new ideas? What proposals would go to this group? Which to WGs, TSC or Policy Committee? Notwithstanding these questions, most of the Board was positive and have seen similar bodies work well in other organisations. The Board agreed to progress the formation of such a group with Ken Lunn and Lynn Laakso (TSC Project Manager) to explore with the TSC the best way of taking forward the idea of forward within the working group structure. The agreed goals of such a group would be to:

- Foster a spirit of innovation within HL7.
- Provide an incubation environment for new ideas
- Act as a major entry point for new ideas into HL7
- Provide channels into the appropriate committees and structures of HL7 when proposals have reached an appropriate maturity
- Support promising developments by seeking funding
- Engage with funding bodies to stimulate innovation.

Presentation on UK Logical Record Architecture

Nicholas Oughtibridge, Lead Architect for the Logical Record, NHS Connecting for Health, gave a presentation on the UK NHS Logical Record Architecture (LRA), with the following key points being noted:

- The work on the LRA (and CfH) is only applicable to the NHS in England. It does not apply to Scotland, Wales, Northern Ireland or non-English jurisdictions
- Since 1948 the NHS has provided universal primary care with a strong culture of retaining records - originally on paper. Records are transferred when a person changes GPs.
- GPs use the EMR as a knowledge resource for administration, prescriptions, results, decision support (interactions), registry support, referrals, free expression clinical notes. A significant proportion of GP income depends on analysing outcomes through clinical records.
- Success has come from using a lightweight record model and rich terminology.
- Thousands of records are transferred electronically between different types of EMR systems [via GP2GP] but the ability to transfer the "whole record" is limited - "content models" differ.
- Pieces of many hospital activities are computerised - orders, results, prescriptions, demographics, identifiers, handover of care, invoices, remittances - but there is NO specification of the "whole record" to support the transfer and integration of whole patient records.
- Supporting infrastructure at local level is predominantly HL7v2 messaging with many bespoke interfaces. Penetration of HL7v3 messaging is limited beyond its use the SPINE.

- With no normalised record model, transformation from content models (e.g. openEHR to messages) is hard to implement, tooling is expensive, incompatible content models promulgate and critical clinical information is missed.
- The LRA seeks to address this by use of a common record model for the Clinical Record that harmonises the specification and use of information in
 - Clinical Forms
 - Query (for analysis)
 - Transactions (including messages), and
 - Domain Models
- The core components on which the LRA Content Model is being built are:
 - SNOMED CT terminology - description logic
 - ISO 13606 EHR Communications - as object model, with
 - ISO 21090 Harmonised (HL7/ISO/CEN) data types
 - HL7-derived actor/participation model
 - UCUM for units of measure
- The philosophy of a lightweight information/object model (archetypes) and rich terminology model will be retained and progressed - archetypes will non-hierarchical and there will be greater emphasis on explicit use of terminology expressions
- Model development process - information structures, data element sets and links will be defined nationally as constraints on the common object and terminology models - and stored in a nationally accessible component repository.
- At the local level - the development process will be applied by generating information structures that combine and constrain national components to align with local workflow requirements.
- The component repository will include: a UML Class definition for each component, data type constraints, unit dimension constraints, unit display constraints, SNOMED CT reference set constraints.
- NHS see key issues for HL7 being:
 - reducing the overlaps between semantics in both terminology and information model
 - delivering applications of the TermInfo model in a machine-processable form
 - extending the HL7 models to better support whole record transfer [as in openEHR]
- Discussion included questions from HL7 on how this relates to HL7, how the approach might be rendered in HL7v3 messages and a comment (Stan Huff) supporting the need for greater clarity in the relationship between terminology and data structure.

[It was noted that there was very limited discussion of v3 messaging, no discussion of CDA and, also, that the role of 13606 archetypes is apparently limited to providing the framework for elemental components. More complex structures and customisations that might otherwise be handled with more complex archetypes and/or openEHR templates appear to be addressed via constraints on UML models.]
Copies of the summary presentation, plus a full slide deck describing the LRA approach were provided and may be obtained through Richard Dixon Hughes (richard@dh4.com.au) or Klaus Veil (Klaus@Veil.net.au). Further information is also available from: <http://www.connectingforhealth.nhs.uk/lra> or by sending an email to: datastandards@nhs.net

9 Australian proposal to host 2011 international HL7 WGM

Klaus Veil, Richard Dixon Hughes, Heather Grain

Significant progress was made by the Australian delegation in gaining support for holding of the 2011 HL7 International Working Group Meeting (WGM) in Australia, in particular:

- The proposal to hold the 2011 meeting in Australia was discussed and received positively at the Affiliates Council - with several helpful suggestions from the floor.
- Members of the Australian delegation actively lobbied members of the HL7 Board, executive staff and influential members of the broader HL7 community throughout the week.
- "Australia" T-shirts and small promotional gifts (clip-on koalas, flags, pins, mouse-mats, pens, jewel-boxes and other contraband) generously provided by NEHTA and HL7 Australia were effective in building relationships, raising awareness and generating support for the Australian proposal;
- A team lead by Max and Klaus were able to successfully disperse some concerns at the HL7 HQ regarding the financial viability of the 2011 WGM in Sydney in a meeting held with Mark McDougall, Executive Director of HL7.

- On Thursday 24 September, Klaus Veil gave a short presentation to the Affiliate Chairs meeting (www.HL7.org.au/docs/2011-WGM/HL7_2011_WGM.ppt) which unanimously voted in favour of a proposal to hold the 2011 meeting in Sydney. Klaus was supported in the meeting by Andrew Howard (NEHTA) and Richard Dixon Hughes.
- the next formal steps forward are:
 - The HL7 Executive Director confirms the cost and revenue projections and presents his report to the HL7 Finance Committee (which will consider it at a meeting in the second week of November)

Implications for Australia: The main benefit of holding w HL7 WGM in Australia is access to the world-wide leading experts in all areas of e-Health. This will a

Proposed Actions: A concerted effort by all local organisations will be required to ensure the success of the 2011 Sydney WGM. Specific suggestions at the delegates meeting include:

- That a 2011 Sydney WGM Steering Committee be established consisting of:
 - 3 members from the HL7 Australia Board
 - Standards Australia
 - IT14
 - NEHTA and
 - DoHA

This Committee will support HL7 HQ in producing the event by assisting with the organisation of local education and touristic events that support the 2011 WGM as well as the promotional activities of the "Engagement Committee"..

That this group identify the skills required to support the initiative and invite other support where needed. A broader "Engagement Committee" including but not limited to MSIA, HIMAA, HISA, the jurisdictions, etc. was also outlined to provide input and to ensure broad promotion, support and participation in the 2011 WGM in Sydney.

- The date of the meeting of will either January or May and will be determined by HL7 HQ, based on the overall financial estimates and other information provided. This information will include:
 - Fiscal information
 - Strategies for increasing co-chair / US attendance, and maximising local attendance.
- It was noted that, if the Rio WGM does repeats the low participation of the Kyoto WGM, this could jeopardise plans to hold the 2011 WGM in Sydney. It was agreed that Australia should work with HL7 Brazil to facilitate a good outcome (including better messages about the venue)

Web site: www.HL7.org.au/2011-WGM-Sydney.htm

More info from Rene Spronk: www.ringholm.de/column/Internationalization_of_HL7.htm

Actors: HL7 Australia to invite each organisation to indicate members for the steering committee ASAP.

10 Affiliates Council (now re-named "International Council")

Klaus Veil, Richard Dixon-Hughes

10.1 General business of the Council

The Affiliates Council (which is a forum for discussion of international interests within HL7) met with representatives present from Affiliates in Australia, Austria, Belgium, Brazil, Canada, China, Colombia, Finland, France, Germany, Greece, India, Israel, Japan, Republic of Korea, Mexico, New Zealand, Russia, Sweden, Switzerland, Taiwan, The Netherlands and the UK. Delegations from Puerto Rico, the USA and Pakistan also attended, as well as senior HL7 office-bearers. Apologies were received from HL7 Argentina.

In its Sunday general session, the Affiliates Council received reports from the two directors on the HL7 Board elected by Affiliates and from the CEO and CTO of HL7, the TSC, Marketing Council and Education Committee and in relation to HQ Liaison. Many of the more important topics are covered in other sections of

this report and will not be repeated. Some matters particularly noted at the Affiliates' Council included the following:-

- Michael Van Campen (Canada) was re-elected as one of two directors on the Board of HL7 International elected by international Affiliates for the two year period 2010-11.
- The term of Catherine Chronaki, (Greece), the other director elected by the Affiliates, expires at the end of 2010, when she is eligible for re-election. Catherine is also a co-chair of the Affiliates' Council (responsible for Affiliate liaison).
- Robert Stegwee (The Netherlands) continues as Affiliates' Council co-chair (responsible for HL7 liaison). No significant issues requiring representation had arisen since the last WGM and relationships between Affiliates and the HL7 International organisation, executives and HQ staff appear to be operating satisfactorily.
- Helen Stevens Love (Canada) continues as Secretary of the Affiliates' Council.
- HL7 Russia has been admitted as an Affiliate and the Russian delegation, headed by the Chair of HL7 Russia, Dr Tatyana Zarubina MD, PhD, of the Russian State Medical University, was warmly welcomed to their first Affiliates' Council meeting. (See press article: <http://www.healthcareitnews.com/news/russian-affiliate-joins-global-healthcare-standards-organization>).
- Relevant HL7 standards are being translated and made available in Russian.
- An HL7 Affiliate has been formed in the Hong Kong SAR. An accelerated online ballot of the Affiliates' Council enabled the Board to approve the admission of Hong Kong, subject to the standard Affiliate agreement being executed - execution is planned to coincide with a visit by HL7 leadership in early October 2009.
- According to the Affiliate Due Diligence Committee Update, there are presently 33 Affiliates with one (Ireland) under review because of a danger of lapsing. The status and intentions of Ireland are being followed up and monitored by the HL7 Board and executive team.
- Rene Spronk (The Netherlands) provided his annual analysis of Affiliate membership numbers and the contribution of Affiliates to overall HL7 membership, WGM attendance, revenues and activities. In previous years, the numbers were compiled from data supplied by each Affiliate.
- This year Affiliate membership statistics have also been maintained by HL7 HQ. Reconciling the two has provided some interesting insights. He concluded that:
 - HL7 should maintain and analyse a marketing database that identifies all individuals and companies involved with HL7 world-wide.
 - WGM attendances - On long-term average, US repeat attendees are slowly declining whereas international are rising and international WGMs stimulate more repeat attendance.
- The meeting noted Klaus Veil's observation that it is difficult to compare membership revenue and activities between Affiliates as different countries have different packages. Some unbundle the standards or provide services in response to their own market needs. The influence and activities of national programs can also be significant.
- Pakistan and Puerto Rico are continuing to work toward becoming new Affiliates. There is renewed interest from other European nations following stronger engagement by HL7 at the Pan-European level and involvement of HL7 in the XXII International Conference of the European Federation for Medical Informatics in Sarajevo. Bosnia-Herzegovina is a potential candidate.
- Internationalisation of HL7 - including renaming of Affiliates' Council to International Council and winding up OMOV Committee - see Section 2.2 above.
- Affiliates are supporting proposals to provide scholarships to facilitate candidates from developing countries participating in the online eLearning program. This was discussed further at the Affiliate Chairs' lunch at which motions were passed - one recommending that the HL7 International Board arrange for 1 in 10 student places be scholarship positions
- Ravi Natarajan (UK NHS) represents Affiliates on the TSC and reported progress in the establishment of professional HL7 project approval, tracking and planning - through Project Insight and the use of GForge tools. Ravi is seeking to increase interaction of Affiliate Council members with the TSC but feedback from Affiliates has been minimal. He is suggesting the Affiliates' Council form a project /technical group to progress thinking/work between meetings
- HL7 projects can be located and tracked through the HL7 searchable project database: <http://www.hl7.org/special/Committees/projman/searchableProjectIndex.cfm>
Or, at a coarser level, via the TSC GForge website: <http://gforge.hl7.org/gf/project/>.

Implications for Australia: do we support the need for a separate technical group in the Affiliates' Council and would we wish to be involved?

Action by: HL7 Australia, IT14, NEHTA and DoHA

- The Affiliates thanked Heather Grain for her work to date on the Health Informatics Glossary and Document Registry.
- EHR WG announced that detailed work on Release 2 of the EHR Systems Functional Model (EHR-S FM) has commenced (with a view to being a JIC project with ISO/TC215) and that international input is keenly sought to assist in this endeavour and ensure that it appropriately addresses full range of global requirements.
- A brief segment on SAEAF was presented, highlighting current progress (refer to CTO report) and opportunities for Affiliates to participate in SAEAF updates and activities being provided at the Atlanta meeting.
- Marketing and educational outreach - see separate notes below.
- HL7 eLearning program - see separate notes below.
- Certification of Products for/by HL7 and its Affiliates. This has long been under discussion at various levels of HL7 and is attractive to some Affiliates (raised by Italy) as a relevant service and potentially strong revenue source. The Affiliates Council was split on the issue, noting that a single organisation setting standards and providing associated certification services can trigger anti-monopoly powers in some jurisdictions. The need for certifiers to incur the costs of insurance and heavyweight quality management structures was also raised; however, some Affiliates (? The Netherlands) are providing such services.
- Engagement with National Initiatives. Noting that profiler/enforcer organisations (PEOs), such as national programs, have emerged as major users of HL7 standards, TSC mounted a project to consider - What are their requirements? Are they being met? What is important to them? Are we in a position to contractually commit to them? This initiative has proven beyond the TSC and they have asked the Affiliates' Council to develop a relevant approach for each of the national initiatives. A lively discussion ensued - with the Affiliates' Council to carry the matter forward for further consideration.

10.2 Update from each HL7 Affiliate

As normal, most of the Affiliates present gave a short presentation on developments in their own countries and/or anything that they wished to bring to the attention of the Affiliates' Council. The following were particularly noted.

- Encouragement for Affiliates to actively support 2010 International HL7 WGM in Brazil (see separate commentary below).
- HL7 France has proposed that the 2012 International WGM be held in Paris, which apparently has up to a dozen world-class conference centres at which the event could be hosted.
- UK also expressed interest in either holding the 2012 International WGM (probably in London) or being considered as the fall-back to Paris, if Paris is selected. [Note: 2012 is the year of the London Olympics].
- France has a dedicated new government eHealth agency, ASIP Santé which commenced in September 2009 to facilitate the improvement of shared IT systems in the French healthcare and medico-social sectors. In addition to its responsibilities for the new DMP (Dossier Médical Partagé - Shared medical record) it has a mandate for interoperability infrastructure - care professionals directory electronic cards and PKI, national patient identifier, etc. It should be noted that this is not just the old DMP (Dossier Médical Personnel - Personal medical record) under a new name.
- ePrescribing and medications is becoming common with over half French Departements having more than 50% of their pharmacy prescriptions transferred electronically.
- The French Interoperability framework places CDA in the middle of the solution set and has many companies contributing to the standards as the framework will be mandatory. There is a standard French CDA header and HL7 standards for France are developed jointly within a single organisation InteropSanté - representing HL7 France, IHE France and HPRIM.
- HL7 Finland - has implementations of eRx, meds, referral, discharge, exchange of pdf's - all based on standard use of CDA.
- HL7 Germany - SNOMED adoption is being promoted via a user guide booklet.

- HL7 Japan has undergone a significant transformation with all 340 JAHIS members (vendors) automatically becoming HL7 members. This takes the original membership of 150 to over 400 members and is reflected by more corporate involvement on the Board of HL7 Japan.
- CCD implementation guide is a key development in Japan and the new MIS packages developed by Fujitsu and others have standard HL7 export (over 50% of large hospitals over 400 beds have the capability to export data in HL7)
- Slides and pictures for the IHIC2009 and Kyoto WGM events are still available from the IHIC website.
- Sweden. With the adoption of EN13606 as the official health record architecture, Sweden reported a significant decline in investment and interest in HL7 projects. This evoked some surprise - some other countries see complementary roles for HL7 and 13606 archetypes. Nevertheless, without major national interest in v3, CDA and/or active involvement in IHE interoperability there may not be sufficient need or interest to sustain a strong Affiliate.
- Norway is going to use HLv3 at national level for national infrastructure.
- New Zealand (Martin Entwistle) reported a small and declining membership, which is of concern. The predominant usage is v2. There is a lack of government endorsement for either CDA and/or v3, although there is some (limited) use of CDA - HL7 NZ would like it to be faster and is seeking to promote its wider adoption by offering a combined membership package with resources for CDA transition/adoption. There are some in the vendor community resistant to any change that affects operational v2 interfaces.
- The main change in the role of HL7 UK has been away from standards development to education, training and promotion - complementary to the national program. There is also University engagement - through development and presentation of HL7 content for informatics-related courses (which has raised a few issues about copyright and IP). Demand for v2 training is rising again and HL7 UK is promoting training courses delivered by members, rather than competing with them. HL7 UK has moved its annual conference to Spring - it will now be in March.
- UK had been concerned that the degree of organisational change to achieve OMOV could threaten the existing Affiliate business model and is pleased that HL7 International is considering middle courses.
- Upcoming events include a Latin American HL7 conference in Uruguay.
- HL7 Australia reported that v2 remains the main focus and that work on eReferral has progressed in conjunction with the IHE Australian local Connectathons. Other activities include training and conformance testing, in conjunction with IHE. A closer relationship with AHML is under investigation. The main challenge is CDA - and making the transformation from v2 to CDA, where required in collaboration with NEHTA and Standards Australia.

Copies of presentations by the national Affiliates to the Affiliates' Council have already been posted to the HL7 website and may be downloaded as a zip file from:

<http://www.hl7.org/library/committees/intl/minutes/Mintues%20International%20Council%20-%20Atlanta%20Sept%202009%20Around%20the%20World%20Presentations.zip>

The minutes of the meeting should also eventually be posted available for download via the following link (along with minutes of other recent Affiliates' Council meetings):

<http://www.hl7.org/Special/committees/international/minutes.cfm>

10.3 2010 International HL7 WGM in Brazil

The May 2010 HL7 Working Group meeting will be held in Rio de Janeiro, Brazil from 15-21 May 2010 in the same location as the ISO/TC215 Health Informatics meeting (from 9-13 May). HL7 Brazil has commenced promotion of the WGM in Rio de Janeiro and made several presentations at the Atlanta WGM.

It is also planned to squeeze IHIC 2010 into the gap between the ISO and HL7 meetings - overlapping some activities of both. It is likely that IHIC 2010 will have a strong Latino flavour but, for some, it will be wall-to-wall meetings for nearly 15 days.

Proposed Action: There should be serious consideration to our position on this heavy approach to meetings as it is unlikely, with the best will in the world that delegations will perform at their optimum after so many days of heavy duty. Though there are savings in attendance fees (airfares in particular) there are likely to be some of our experienced delegates unable to take this long form their normal business activities.

Action by: IT14 to establish a position on this approach to meetings.

Supporting web site for the 2010 WGM in Rio de Janeiro: www.HL7.org.au/2010-WGM-Rio.htm

11 JWG/JIC Liaison Session

Richard Dixon-Hughes and Heather Grain

The principal purpose of the JIC/JWG liaison session held on Sunday afternoon, 20 September was to provide the HL7 membership with an update on projects being progressed or considered as joint projects under the Joint Initiative Charter for Health Informatics SDO Harmonisation and to allow opportunities for discussion and feedback. The JI Charter was originally between the peak health informatics standards bodies - ISO/TC215, CEN/TC251 and HL7 (but now includes CDISC and IHTSDO) and provides for projects to be carried out a joint work, if approved by the Joint Initiative Council (JIC) representing the leadership of each of the participating SDOs. The JIC (which is a closed meeting of SDO leaders) is supported by an open Joint Working Group (JWG) that makes recommendations on process and projects that progress harmonisation of health informatics standards work. Matters covered are discussed here and under their topic heading lower in the report. The information is not repeated.

11.1 Harmonised Data Types (ISO 21090)

Grahame Grieve (Australia) reported the HL7 ballot on harmonised data types had closed with some 30 or so negatives; however, most were outside the limited scope allowed for comment and would be deferred for consideration at the next revision. Those that were within scope were not unexpected and would not result in change to the specifications or failure of the ballot. He expressed disappointed that, despite having met the ISO deadlines, the ISO and CEN ballots had not been issued in parallel with the HL7 ballot - in fact they had not commenced by the time of the Atlanta meeting and he had been unable to get any feedback on when they would take place. Finalisation of the HL7 ballot will take place when the ISO and CEN FDIS votes are finally received (and we know what we are dealing with).

Richard Dixon Hughes subsequently followed up with Audrey Dickerson (ISO TC215 Secretariat) (who was absent during the JWG update session) and was advised that AFNOR had exercised their prerogative of delaying the ballot by 3 months to allow the documents to be translated into French. The delay is unfortunate but unavoidable under the rules of international standardization.

11.2 IDMP (Identification of Medicinal Products)

The five IDMP standards are being progressed by ISO/TC215 as a "joint" project. The work had to be re-submitted to an NWIP ballot, because insufficient agreement had been reached on the content to enable a Committee Draft ballot. The JIC/JWG liaison session noted that, despite significant problems, the HL7 Pharmacy group is now engaged in ISO/TC215/WG6 activities. Further commentary on IDMP is provided in the Pharmacy report at section 29.1 below

11.3 ICSR (Individual Case Safety Report)

An original ISO/CEN ICSR project was brought into the international standards arena through ICH and EMeA seeking to address viewpoints put forward by regulators and some in the pharmaceutical industries. At the same time, HL7 already had developed a normative ICSR reporting standard that addressed FDA requirements and was being used in the USA. There has also been a general problem that work on ICSR had been undertaken from the regulators' viewpoint, in isolation from more recent developments in health informatics.

The draft which has just been balloted represents a harmonized document developed jointly by and simultaneously balloted in ISO, CEN and HL7. The ballot result was pending at the time of the meeting and there was no further discussion.

11.4 Health Informatics Glossary and Document Registry

Heather Grain (Australia) gave a presentation on the Health Informatics Glossary and Document Registry, providing an update on the experiences to date, particularly in relation to the addition of HL7 glossary terms, which are still based on HL7v2 concepts, rather than v3/CDA. Examples of conflicting concepts and multiple definitions were given and the proposed process of resolution explained.

The session suggested that the Publications WG is the HL7 forum most involved with maintenance and production of the HL7 Glossary. This WG needs to become involved in helping to resolve conflicts over definitions and concepts in the glossary. This is discussed further in the Vocabulary Working Group report.

12 Operation of JIC/JWG processes

12.1 HL7 executive reports on JIC/JWG activities

Chuck Jaffe (HL7 CEO) and John Quinn (HL7 CTO) alluded to their earlier comments to the TSC and Affiliates Council confirming that the JIC is the only group with authority to make decisions where HL7 is committing to joint work.

They noted that matters discussed at JWG are for information and for advice to the JIC. The session was advised that, while the JWG might resolve to recommend a process, plan, procedure or project to the JIC, it has no authority to commit HL7 or SDO resources to undertake work. If members of the JWG commit to an action, they do so as individual experts and not as representatives of HL7 (or other participating SDOs). HL7 members need to be aware that when they participate, other than as a designated HL7 liaison, in ISO or CEN meetings (including JWG) they do so as representatives of their ISO National Member Body and not as representatives of HL7.

The next constituted meeting of the JWG would be held at the ISO/TSC 215 meeting in Durham, North Carolina on the 17th of October.

During discussion, the HL7 leadership were very positive about the level of goodwill between the SDOs at the JIC and willingness of JIC members to cooperate in trying to drive the harmonisation agenda forward, despite the difficulties of marrying different processes and procedures. Unfortunately, the HL7 leadership do not feel the same way about the JWG. Specific problems appear to be: claims that JWG disregards JIC role and its approvals, JWG's perceived failure to follow through on JIC directions and an unwillingness of some JWG participants to collaborate or compromise - even when the leadership of their SDO has made a commitment to a course of action. It was mentioned that senior leaders of the JIC SDOs had tried to resolve these issues but the message was not getting through to JWG. It takes a lot of scarce time and resources for senior people to participate in SDO harmonisation meetings - this cannot continue if they do not deliver appropriate value to the participants.

It was suggested that the Affiliates Council might wish to support re-thinking the role and activities of the JWG - the need for a push or pull - even a step backwards. The HL7 Affiliates Council represents broad interests - can members push at national/regional level to improve and avoid acrimony over detailed cases [which suggest that HL7 concerns have arisen over certain project matters].

Requirements for action:

Brief JWG Secretariat (Standards Australia) and convener of JWG of JIC/HL7 concerns about JWG activities, with a view to getting differences resolved as there are differences between the different organisations as to the level of commitment represented by a JIC decision.

There is a need for HL7 to clearly define their processes for engagement or otherwise and to make this clear to all members of the JIC.

Action by: Richard Dixon Hughes, Heather Grain, Klaus Veil and Andrew Caswell (Standards Australia)

HL7 is now putting information on its website about HL7's commitments to JIC joint projects and the adoption of HL7 standards by ISO/TC215:

- For information about HL7's collaboration with ISO and others through JIC:
<http://www.hl7.org/participate/isojic.cfm>
- For information on the JIC process stages:
<http://www.hl7.org/documentcenter/public/procedures/iso-jic/The%20JIC%20Process%20Stages.doc>
- For information on projects underway from HL7 for ISO and JIC approval:
<http://www.hl7tsc.org/wiki/index.php?title=ISO>.

Note. JIC/JWG web site: www.Global-e-Health-Standards.org

The JIC subsequently met at the Atlanta WGM on the Wednesday afternoon. The meeting was a closed session restricted to leaders of the participating SDOs. There were no new joint projects up for approval on this occasion but the meeting is understood to deal with the upgrade of IHTSDO to full membership and issues surrounding engagement with and the possible admission of other organisations. A proposal covering

the various aspects of DCM is expected when it has been fully worked up and canvassed between likely participants.

12.2 Developments in the EU

Melvin Reynolds (on behalf of CEN) did not present a formal CEN update; however, he noted that Jeremy Thorp (UK NHS) would be presenting to the HL7 Plenary session on the European Calliope, epSOS and M/403 eHealth-INTEROP activities.

The CEN/TC251 Health Informatics committee has cleared the decks of projects in order to be able to participate constructively in pan-European eHealth interoperability initiatives and to assist these initiatives in sourcing appropriate standards to address their requirements - preferably adopting or profiling existing standards, or through timely collaboration and harmonisation and, only if this is not possible, by developing new EN standards.

12.3 Other points noted in the session

TSC reported that it has sought representation on the organisational liaison committee of HL7 to ensure the TSC has knowledge of collaborative work plans and can ensure that mutual sharing of appropriate work plans at a detailed level.

Ken Lunn reported on a meeting of 10 national initiatives including ONC, UK-NHS, CHI and NEHTA considering common concerns. They are not so much concerned about standards developments as is how to integrate them. They invited openEHR, HL7 and IHTSDO to present and discuss.

Given that national initiatives put a lot of resources into SDO activities, the expectation is that the SDOs will cooperate and collaborate meaningfully to serve the stakeholders better. This has not yet happened at a general level but peer to peer harmonisation is becoming more common. With NHS encouragement there is a lot more peer-to-peer sharing, not expecting a new formal structure or formal program of work. Positive sharing of IHTSDO tooling with HL7 for Vocab is seen as positive.

Bernd Blobel (Germany) expressed his concern that a technically detailed, proven health record audit trail specification from HL7 had been submitted to ISO/TC215 for elevation to an ISO international standard. In a lengthy process, over 60% of the material was removed from the standard - producing a standard that was superficial, imprecise and of little value.

Ed Hammond retires as inaugural JIC chair at the end of 2009 and Kees Molenaar (CEN/TC251, The Netherlands) was confirmed as the incoming chair for 2010.

12.3.1 Future JIC/JWG liaison sessions

Organisation of HL7/CEN/ISO liaison sessions at HL7 Working Group Meetings has grown up outside the normal HL7 Work Groups and was, for quite some time, organised through the good graces of former HL7 Chairman, Mark Shafarman.

These sessions were very successful in establishing the dialogue needed to pave the way to the formation of the JIC and JWG but, it is now time to review the future of these meetings - given that JIC and JWG have been formed and are operational and that many of those attending the session also take part in JWG meetings. HL7 also needs to understand why and where it needs to commit corporate resources to such a meeting.

Charlie McCay (TSC Chair) ran a straw poll which indicated moderate support for 1) continuing with these meetings at the same time, if JWG is not meeting at a WGM 2) TSC becoming the "owner" of the JIC/JWG discussions within HL7 3) TSC taking responsibility for getting the agenda out for next WGM.

Required action: Get JWG Secretariat (Andrew Caswell, Standards Australia) into communication with Lynn Laakso, TSC Project Manager and Charlie McCay to see if they can get a better working relationship between JWG and HL7, at least at TSC level.

Action by: Richard Dixon Hughes and Andrew Caswell

12.3.2 Proposed JWG meeting in Rio - May 2010

Arising from discussions at the JIC/JWG information session and the desire of HL7 members to have a fair share of JWG meetings in conjunction with HL7 WGMs, it was considered desirable to try and hold the JWG meeting between the ISO meeting and the HL7 WGM at Rio in May 2010 - at the normal time on the HL7 calendar, namely Q4/Q5 on the Sunday between ISO and HL7 meetings. This was subsequently discussed with Audrey Dickerson, who agreed that it would be appropriate.

Required action: Advise JWG secretariat (Standards Australia) and arrange for this to be discussed at TC215 in Durham.

Action: Richard Dixon Hughes, Heather Grain and Andrew Caswell (JWG Secretariat)

13 Technical Steering Committee (TSC)

Richard Dixon Hughes

The TSC commenced work on the Saturday leading into the WGM, with further meetings on Sunday evening, Monday night, Tuesday lunch and Wednesday afternoon (for a major discussion of SAEAF implementation with involved WGs). Matters discussed included:

- The overall HL7 work program and project proposals; however, most of this activity actually takes place in the regular teleconferences of the TSC, in between WGMs. Face-to-face meetings at WGMs therefore represent an opportunity to consider more strategic issues.
- CTO discussions. The TSC had in-depth discussion with the CTO, John Quinn, of the matters that would also be covered in his summary reports to the HL7 Board, the Affiliates' Council, WG co-chairs and to the membership at large. The main outcomes in relation to project management and JIC/SDO liaison, tooling, the website and SAEAF are reported at section 3.3 above. Engagement with US SDOs through
- Project management and governance processes. With appointment of Lynn Laasko as TSC Project Manager, general acceptance of the new project proposal and reporting regime, and project information being available online. Key goals of transparency and visibility of project work are being achieved.
- Further measures to minimise the possibility of duplicate and overlapping work where two or more WG's activities overlap. It was noted that such overlaps are not always obvious at the steering division (SD) level - as the various groups involved may be under different SDs. With a dedicated TSC Project Manager working with TSC, ArB, the 4 SDs and overseeing the project registers, it is hoped to minimise any adverse impact.
- Ensuring that people with the appropriate knowledge and skills are elected to SDs (and other technical leadership positions).

14 Plenary Presentations

Andy Bond, Heather Grain, Hugh Leslie, Vince McCauley, Klaus Veil

"Bon Mots"

Integration has to be part of the strategic plan, not an afterthought – Steve Hufnagel
EHR made me personally a better physician – David Blumenthal

There were a couple of presentations about the US federal government's "meaningful use" criteria for clinicians to receive the funding offered to get them using EMRs. To qualify as a "meaningful user," eligible providers must demonstrate use of a "qualified EHR" in a "meaningful manner." The bill defers to the secretary of Health and Human Services (HSS) to set specific guidelines for determining what constitutes a "qualified EHR"; however, it does specify that e-prescribing, electronic exchange of medical records, and interoperability of systems will be determining criteria. The interesting thing for HL7 was that there are three standards that are required for "meaningful use" and will be mandated by 2015. These are HL7 v2.3.1, HL7 v2.5 and HL7 CDA. Notably missing from this list is HL7 v3 (although CDA is a component of v3). The CCR specification is also missing from this list.

Implications: HL7 V2 is going to continue to be important for at least the next 5-10 years in the USA and this is also likely for Australia. HL7 v3 continues to have problems gaining significant implementation and CDA is currently what most jurisdictions are looking at. This is consistent with NEHTA's current approach.

John Tooker, CEO ACP: "Unlocking the Power of Health Information - Response from the Clinical Community"

Dr Tooker raised questions about the changes occurring in healthcare, these include the ability to cope with increasing demand. In the US they are seeking answers through insurance reform and redesign of the workforce to meet the needs of the populace and not the needs of physicians. This will be a difficult road politically and practically. The issue of care in primary environments and provision by small business providers was seen as a significant issue in change management. Financing and managing models of coordinated care is very difficult. The issue of EHR is significant as most care is not integrated within the community where the patients live and 90% of physician practices are 4 practitioners or less

Emerging models include:

- Organizing Patient Care to Improve Quality & Reduce Costs
- Disease-specific experts model
- Primary Care Fee for Service model
- Refining the Primary care Model
- Multidisciplinary Primary Care Team model (Patient-Centred Medical Home)
- Wagner Chronic Care model

Jeremy Thorpe, NHS: "Mandate 403 - The European Union's EHR Initiative"

Janet Corrigan CEO National Quality Forum: "The Role for Quality Measures"

David Blumenthal: "Implementing HITECH: Standards and Beyond"

Health IT is regarded as the circulatory system of health enabling connectivity and sharing beyond the local provider. The American Recovery and Reinvestment Act of 2009 (ARRA) indicates that 'Meaningful Use' is being put forward as a measure of care outcomes and provides a set of measurable performance goals. Starting in 2011 providers deemed 'meaningful users' of EHR systems will be eligible to receive incentive payments. 2011 concentrates on content, 2013 on care processes and decision support, and 2015 on the outcomes of care. The ARRA is supported by the concepts that:

- You cannot improve performance without information exchange (interoperability).
- You cannot expect physicians to do this on their, so provide support mechanisms to make it easier.
- Law changes re unauthorised access & breaches are required
- Set up support will be established by setting up 70 regional extension centres based upon Agriculture.

The standards approach aligns with Australian market as they have anointed HL7 v2.5.1 and CDA as building blocks. Some questions remain as to how structured content will be realised with various versions of standards.

- The Federal Health Architecture (FHA) has created an open source CONNECT project (www.ConnectOpenSource.org) to support health exchanges joining in on the National Health Information Network (NHIN).
- Certification is an essential part of the adoption programs and needs to be in place before incentives drive uptake. Incentives are to be aligned to the Meaningful Use criteria.
- The congressional package has also created an HIT Research Centre.

ACTION: NEHTA to compare the CONNECT infrastructure to the National Infrastructure Services to ensure awareness of differences in infrastructural approaches.

15 Architecture Board (ArB)

Andy Bond, Richard Dixon Hughes

- Membership of the ArB is by invitation. HL7 has asked Andy Bond of NEHTA to join the ArB, which has been accepted.
- Most of the ArB's current work is focussed on further development and documentation of the SAEAF framework and its initial implementation in the "Alpha Projects" (see section 16 below for more on this).
- The SAEAF work needs a common publication model to ensure various project artefacts are easily discoverable. One possible approach is to use GForge.
- It is possible that ArB may hold an of out of session meeting in November.
- It is clear that the information architecture across HL7 is a pain point with a variety of approaches emergent from different groups. ArB probably needs to put more effort into identifying the coverage, overlaps and approaches used to capture, model and manage information within HL7 and do a better job of facilitating the identification and sharing of common information(including domain models) to avoid incompatible replication.

16 SAEAF Development and Implementation

The following notes additional to the material covered in the CTO report (above) arose from other discussions of progress with the SAEAF project.

- Karen Smith, a technical writer is turning the existing SAEAF documentation into something more readable. IBM has contributed documentation software allowing for automatic update of cross referenced material.
- Jane Curry and Tony Julian are providing the technical backup to Karen as she produces the updated technical documentation of the SAEAF model and its processes. This should ensure that the technical documentation retains the necessary rigour, while being more readable.
- Proposed Alpha projects are skewed toward core HL7 infrastructure but have not progressed significantly since they were identified prior to the May WGM in Kyoto. The current list of SAEAF Alpha projects is:
 - PASS (Privacy, Access & Security Services) - Security and SOA
 - CTS2 (Clinical Terminology Services 2) - Vocab and SOA
 - caEHR (Cancer ambulatory oncology EHR specification) - with US NIH/NCI and SOA
 - ITS (Implementable Technology Specifications) - InM
 - V3 Composite Order - OO WG
 - CDA R3 (with focus on SAEAF compliance) - Structured Documents WG
 - EHR-S Functional Model R2 - EHR WG (just commencing SAEAF)
 - Infoway 2015 Blueprint
- Availability of SAEAF facilitators to work with Alpha projects is becoming an issue. The way of rapidly growing real SAEAF expertise within the HL7 community needs to be addressed as part of the process.
- Drafts of all SAEAF material is to be available online for review. One of the more useful links is to the presentation library at:
<http://gforge.hl7.org/gf/project/saeaf/scmsvn/?action=browse&path=%2Ftrunk%2Fdocs%2Fpresentations%2F>
- For higher-level navigation, also see:
<http://gforge.hl7.org/gf/project/saeaf/>

NCI Oncology Care EHR has been funded under ARRA money and requires delivery by 2010. It provides a valid reason for NCI to invest in development of SAEAF. NCI putting two resources into EHR group to ensure SAEAF aligned delivery.

ArB members are assigned to the alpha projects to foster them through SAEAF use. Projects are often exercising different aspects of SAEAF through choices in modelling, viewpoint, and mechanism (ECCF, Governance, etc) perspectives.

Latest work is on governance that could be regarded as the most challenging cultural aspect of the SAEAF transition.

17 Clinical Interoperability Council

Hugh Leslie

Presentations were given on work progress in the Emergency Medical Services DAM

- Completed scope statement model
- Drafted based on NEMESIS spec - so USA specific
- DMIM drafted by December

Modelling is proceeding smoothly but needs more input. Don Mon presented the diabetes data strategy which includes:

- Collect once and reuse many times

This effort is trying to harmonise data elements – a process that in Australia is partly being undertaken by AIHW in conjunction with the clinical community. However this work in Australia centres upon reporting information rather than taking the complete model approach suggested by this work.

Action: Consider relevance to AIHW metadata work

Project updates

CDISC SHARE project - shared health & research electronic library

Not for profit; 250+ corporate sponsors – clinical trials, pharmaceutical companies
ISO Liason A, Accepted into JIC 2008

- Consensus based approach to support electronic acquisition, exchange, submission and archiving of research data
- Number of open standards – freely available
- Terminology code list
- BRIDG model is HL7 representation – connected through CDISC
- Potential value
- Reduction in cost
- Improved data consistency
- Improve speed in developing standards
- Improved interactions with partners
- Enables semantic interoperability and integration of research with healthcare

SHARE – healthcare is initially intended to be a healthcare biomedical research enriched data dictionary

- Common information model (BRIDG)
- Strong data typing –(ISO)

Using Mayo/NCI Lexgrid to assist in metadata management – website will be published.

Second phase of this project will try to group concepts together using a process that they call ‘Clumping’ – To enable this they are looking at DCMs and openEHR Archetypes.

18 Community Based Collaborative Care

Max Walker

Update on consent etc in the US.

- There is a growing realisation that there must be a balance between Privacy & secondary uses. This that means de-identification mechanisms are needed.
- Security DAM Project – enforcement of the security policies.
- Roll Backed Access Control (RBAC), based on ISO 22600 & is an information model within the Security DAM.

Two more recent projects project have commenced.

- Consent Directive CDA Implementation Guide project.
- RBAC Permission Catalogue Project

The Privacy Access & Security Services (PASS) Project is now officially a Services Aware Enterprise Architecture Framework (SAEAF) Alpha Project.

The Healthcare, Community Services & Provider Directory Service Project participated in its first Normative Ballot. It achieved quorum of 91.51% participation and passed with the results of 43.96% Affirmative, 1.10% Negative and 48.35% Abstain. The only outstanding issue is that of an overall HL7 nature where there are competing philosophies as to whether a Services Functional Model Specification should be completely Standards and Platform free, or whether relevant Standards should be referenced.

CBCC also updated its project lists and is in the process of updating its 3 Year Plan and SWOT.

19 Detailed Clinical Models (DCM) Projects

Hugh Leslie, Stephen Chu and Richard Dixon Hughes

Discussion of DCM work at the Atlanta meeting primarily focussed on the proposal for an HL7 pilot project to be carried out through the through Patient Care WG - in conjunction with Templates and Vocab. The project involves piloting the creation of 10 models and using this to inform a range of process reform activities.

The HL7 TSC did not consider the recent project proposal for the HL7 component of DCM acceptable and deferred any decision pending wider discussion and provision of further information. Before DCM proceeds as an HL7 project, a clearer description of the work and its relationship to other HL7 activities is needed [largely achieved at the Atlanta WGM]. It was pointed out that the scope statement also needs to ensure that it covers the “dynamic aspects” of clinical modelling - and the work needs to consider SAEAF requirements.

The TSC was not willing to approve the proposed project in its original form and William Goossen, the project leader was requested to discuss the proposal more widely and refine the scope.

Following extensive discussion it was agreed that, working through Patient Care, the HL7 DCM pilot project being led by William Goossen is to include the following identified tasks as well as any changes put forward by ARB/TSC and responsible Steering Divisions.

1. *Share available examples, e.g. the discussed top 10.*
2. *Share a guideline for creation of DCM, based on work in the Netherlands*
3. *Develop and use metrics for quality criteria, based on the work of Sunju Ahn from South Korea, and that this is put into ISO work as soon as this is allowed due to PhD obligations*
4. *Make a summary of different existing models, approaches and their implementation*
5. *Identify where work is done and future work should be done, in relationship with ISO and JIC*
6. *Work on creating a repository of DCM examples to share on the PC wiki*
7. *Do comparison of DCM work as in first motion (which is a follow up on the Cologne DCM meeting where some work started from).*
8. *Create tooling to do DCM and exchange with other tools*
9. *Identify a method for inclusion of DCM into the larger SAEAF picture of HL7 methodology, this including how to engage clinicians in particular in the HL7 space, and methods for how to go from DCM to HL7 templates and message artefacts. It will include also the position of DCM in the overall picture which is about decoupling semantics from constraining and from implementing. It should account why this reduces complexity in HL7 as a whole in keeping the clinical data element expression and use consistent. Patient care will accept the request to become an ARB SAEAF alpha project*

10. *Update and extend the current project statement, following comments from ARB and TSC to do so.*
11. *Set up joint meeting with ARB and MnN and publishing to ascertain that DCM fits in the overall SAEAF approach as part of methodology in HL7 and can be published for balloting.*
12. *Identify dependencies for success and how these can be met. In particular to identify dependencies such as on a templates registry and specification, tooling, publishing and linkage to SAEAF.*
13. *Bring to ballot in January 2010, based on work with publication:*
 - *The Top 10 examples, in particular for clinical completeness and correctness of the value – code bindings.*
 - *The guideline for creating DCM, including UML model and transformations to other representations.*
 - *In the ballot it will be specified how this links to the work in clinical groups.*
14. *For submitting DCM to JIC a particular approach was agreed roughly a year ago with the JIC chair. That is in particular to bring it to JIC once it is established as a project in both HL7 (May 2008) and ISO (July 2009). October at the ISO meeting the ISO NIWP 13972 will officially start and the plan has always been to bring the JWG requested projects to JIC. We will now wait to do so following the internal HL7 developments on the project scope adjustment.*
15. *Will reword 1-14 where appropriate in finalizing the proposal to Steering Division and TSC of HL7 (project 320) without changing the intent or context of the above.*

It was noted that the HL7 project that he is proposing for is different to the parallel project being carried out through ISO, which is focussed on developing generic quality criteria for:

- Clinical endorsement of DCMs,
- DCM metadata,
- DCM modelling & model transforms, and
- DCM repository services.

Originally proposed about 12 months ago, the ISO work was delayed for consideration in Edinburgh before the recent NWIP ballot (which has now passed - with Australia a negative at this stage because of inadequacies in the proposal).

Once approved in HL7 and ISO the two separate DCM projects are expected to be elevated for approval as JIC Joint projects. It was confirmed that they would remain as separate (but related) pieces of work and not be merged into a single joint project.

Further related activities within HL7 (being mounted as separate projects through Templates and Tooling WGs) include

1. The project proposal to establish a DCM registry (indexing DCMs in different contexts - such as archetypes in the openEHR Foundation CKM repository and UK NHS and models/templates maintained by HL7, CfH, CHI and US organisations such as DVA, NCI, Mayo Clinic, InterMountain HC, KP and Partners. Mark Shafarman is to be the lead on this.
2. Another HL7 project proposal to establish a DCM repository, specifically for holding and indexing HL7 templates - preferably as part of the HL7v3 tooling solution. Keith Boone is to be the lead on this project.

There was much discussion in working groups about the Detailed Clinical Model (DCM) approach. The theoretical idea behind DCM is a clinical model that is generic and sits outside any formal information model (ie HL7 RIM or *openEHR* reference model). The hope is that DCMs can be created in such a way that other artefacts can be created from them i.e. HL7 templates or *openEHR* Archetypes and so they can serve as a single model that can prevent duplication in different formalisms.

The DCM work was started about three years ago and has made only slow progress in that time. It is only recently that UML has been chosen as a way of representing these models and there are now 10 sample DCM models of various types that are in various stages of development. There has been no work done on actually generating HL7 templates or *openEHR* archetypes from a DCM UML model and indeed on a technical level, it doesn't currently seem possible to generate these models from the sparse data that is contained in the sample models. The proponents of this approach talk about "the magic" that will occur to make this possible.

The complexity of both the HL7 RIM and the *openEHR* reference model will require a large amount of metadata in the UML models to be able to successfully do any automatic transformation and in my opinion the DCMs will need to have at least the same complexity as any other formalism to achieve this. This implies that the DCM approach will need years of work much of which will be duplicating work that has already been done in the HL7 and *openEHR*, and even then, there is no guarantee that it will be possible to reliably and automatically generate other artefacts from these models.

There has been a lot of work done in the *openEHR* space to enable the production of HL7 message instances from archetypes and *openEHR* templates. This approach is pragmatic, viable and is being used in real projects now and would seem to make the DCM approach redundant.

The other issue that the DCM work faces is getting clinical engagement with the development of clinical content. It is unfortunate that the UML modelling approach was chosen as this is highly technical and is likely to act as a barrier to engagement of clinicians. The current UML models are quite dense and make it difficult for anyone not conversant with UML to comment or understand the models. There is no current discussion about how to engage the wider clinical community in reviewing these models and the current thinking is that HL7 has enough technical clinicians to be able to build the models. This is unlikely as the *openEHR* CKM approach has shown that engagement of many clinicians from a wide variety of domains and varying levels of technical expertise is needed to get a content model that meets clinician's needs.

The DCM approach can be considered to be very immature and will need many years more work before it could meet its stated goals. Indeed it is possible, even likely that these goals are unobtainable using the DCM approach.

One of the Patient Care WG co-chair (William Goossen) demonstrated the use of *openEHR* archetype editor as a tool for DCM development. In a subsequent conversation with him, William revealed that the lack of available tool to create "reference model agnostic" clinical content models and in particular to adequately and easily transform them into model specific artefacts as the prime reason for the change in strategic direction. The archetypes created would be transformed into HL7 templates. It is also the intent of the DCM project team to identify mechanism(s) to convert the archetypes into reference model agnostic clinical content models. A very strong recommendation was made to him that there would be very little benefits, if any, for such transform. The time and resources required for tooling development far exceed the perceived benefit. They would be better invest in the improvement of the archetype editor to ensure the transform can produce as high as possible semantically equivalent HL7 templates.

Recommendation: That Australia does not adopt the DCM formalism until such time that real examples of models that are transformable into both HL7 templates and *openEHR* archetypes are available.

Recommendation: That Standards Australia and/or NEHTA investigate the use of the CKM and the *openEHR* archetype formalism to provide a national repository of clinical models. This approach would be similar to that of Sweden, Singapore and likely Brazil.

20 Education Committee / eLearning Program

The eLearning program continues to grow and be well patronised - with over 300 trained in 2009 with the biggest contingents from the USA, Canada and India (which is emerging as a major centre of interest). There are 150 on the waiting-list for the English-language version.

The course has now been broken into modules along the lines suggested by Australia (Richard Dixon Hughes) at the September 2008 WGM in Vancouver.

An HL7 project “eLearning Course Program Administration” (ELC) has been approved by TSC under which the successful 2008 pilots of the e-learning course are being matured into a repeatable and manageable process within HL7 by the Education WG.

The ELC project has identified 14 key activities in the areas of Administration, Maintenance, Support for Affiliates, and Coordination with other HL7 activities - with the aim of allowing any Affiliate to host editions of the eLearning course but while overall HL7 ownership and control of course contents and availability is retained.

Training continues to be given to Affiliates in how to set up, administer and run the program and, as the program expands, questions of program quality, tutor accreditation, revised financial arrangements, currency of material are being kept under review.

All v2.x material in the course has now been updated to v2.6.

A new co-chair position is to be established on the Education WG specifically

Plans for 2010 include scholarship proposals to expand knowledge about, access to, and use of HL7 standards worldwide, especially in countries and regions that do not yet have an HL7 Affiliate. Two forms of scholarship are proposed - the first involves those that receive revenue from each course (HL7 HQ, HL7 Argentina, tutors, local Affiliate) agreeing to provide 1 in every 10 places free of charge for a scholarship student (if available) - this is under consideration.

The second is for various bodies to “sponsor” a scholarship holder and meet the associated fees. The Affiliate Chairs meeting on Thursday agreed to fund up to 10 such scholarship positions in 2010 from Affiliate Council funds.

Implications for Australia: Now that the US-Government has backed HL7v2.5.1 and the eLearning program is basing its work on v2.6. Australian interests need to ensure that we remain engaged with the Ambassador and eLearning groups and that our long-standing development of v2.x is not swamped by others re discovering the field. We should try to cooperate with NZ on this.

Interested Organizations: HL7 Australia, Australian Health Informatics Education Council, IT-014-06, NEHTA.

21 Electronic Health Records (EHR WG)

EHR WG is one of the most active groups in HL7 and conducts much of its more detailed work through regular weekly teleconferences. Therefore, except during periods of heavy ballot reconciliation, WGM sessions tend to concentrate on strategic planning, scheduling upcoming work, harmonisation and liaison with other workgroups. EHR WG activities focus on identifying core functions required in EHR systems and PHR systems (rather than on the logical content or interchange of information in EHR/PHR records - which is covered by other WGs). EHR WG has close relationships with Structured Documents (CDA), Security, Patient Care, PHER, CBCC, CIC and clinical domains. It also has interests in the overall legal integrity of care records and has members that actively participate in the ISO/TC 215 work on EHR/PHR requirements.

Given its focus and interests, EHR-WG tends to be popular with CIOs, vendors, government agencies and others interested in operational requirements for health information systems from the business and regulatory perspective. The WG is strategically relevant and has close ties to the HL7 Board, having had at a co-chair as an elected HL7 Board for at least the last six years (currently Don Mon, Vice President of AHIMA). The business and priorities tend to have been dominated by the USA - because that is where its standards are most used - but the group openly welcomes international viewpoints and is grateful for significant previous Australian input.

The **EHR Systems Functional Model (EHR-S FM)** and its associated functional profiles are the EHR WG's flagship products. The dominant activity on the current EHR WG work list is a major project to upgrade to Release 2 of the EHR-S FM (referred to as “R2”). This follows on from the recent joint ballot with ISO accepting Release 1.1 of the EHR-S FM as a full international standard: ISO/HL7 IS 10781 (known as “R1.1” - now in the final stages of publication). The target for the first draft of R2 is September 2010 (and the project is likely to run for 2-3 years to achieve full normative status in ISO and HL7). Further information on the R2 upgrade of the EHR-S FM is set out in its own subsection below.

Work on the EHR-S FM is important because it is increasingly being adopted and used as a tool for certifying different vendor's EHR Systems to qualify for incentive payments - particularly under various US Government programs. A range of functional profiles for applying the model have been produced and approved for these purposes, including requirements for systems used in ambulatory (e.g. GP) care, emergency departments, acute care hospital EMR/EHR functions, aged & long term care and paediatrics, among others.

Other significant products and activities being managed by EHR-WG include:

- Further EHR-S Functional Profiles - notably the Vital Records FP (covering detailed reporting of births, deaths and stillborn babies) for which information and input has been provided by DHS Victoria as the first international contribution - facilitated by Max Walker.
- Personal Health Record Systems Functional Model (PHR-S FM) - issued as a DSTU in May 08, changes are being collected for an update and normative ballot next year.
- HL7 EHR Interoperability Model (EHR-IM) and EHR Life-Cycle Model. Decisions have now been taken to integrate these into the next generation of the EHR-S and PHR-S functional models and SAEAF - rather than continuing them as separate standards in their own right.
- Participation of EHR-WG in SAEAF - developing viewpoints to reorient future versions of the EHR-S FM, PHR-S FM around a services framework. The importance of EHR WG engagement in SAEAF has been emphasised by EHR-S FM profiles providing the functional viewpoints for the SAEAF pilot at the National Cancer Institute in the US.

More comprehensive background on these EHR WG activities is available in section 17 of the Australian report on the May 2009 Kyoto meeting available from the Standards Australia website:
http://www.e-healthstandards.org.au/downloads/Kyoto%20HL7%20Int%20Meeting%20Report%20-%20Australia%20May09_FINAL.pdf.

Required action: EHR WG weekly teleconferences currently take place at 1530 hrs US-Eastern time - which corresponds to 0530 AEST (in Winter) and 0730 AEDT/ 0630 AEST (in Summer). Richard Dixon Hughes participates from time to time (particularly to support ballots of ISO EHR documents in HL7).

Action by: IT-014-09 - plus other participants with a variety of clinical, health information and eHealth ICT systems development and operations are actively sought to participate (particularly for R2) and would be most welcome.

Matters considered by EHR WG at the Atlanta meeting

The topics covered at the Atlanta meeting were wide-ranging and included:

- Overview of approach to production of EHR-S FM R2, consideration of strategic issues and planning of R2 update work - a total of around 4-5 sessions were spent on this area
- Reviewing and updating status of EHR WG and related projects on HL7 project list and also joint work planned for or progressing through JIC and ISO/CEN processes
- Annual review and update of EHR WG charter
- Resolving process issues with negative ballots stopping progress of the RM/ES (records management & evidentiary support) functional profile
- Canadian eHealth Blueprint 2015 - Functional Support for Patients Access to Quality Care. Considering potential relevance to EHR FM R2 (Sasha Bojicic, HL7 Canada Constituency)
- Update on SAEAF implementation (by Charlie Mead, Chair ArB) and implications for EHR WG in working with ArB on development of EHR-S FM R2 as a SAEAF "Alpha Project"
- Formal project proposal for development of an Ambulatory Oncology EHR Functional Profile in conjunction with US-National Cancer Institute as part of their caEHR project (NIH/NCI are offering to embed 2 FTEs into EHR WG to progress this).

- The white paper by the PHR sub-group *“Balancing the integrity and value of personal health records with consumer adoption, current health IT standards, and privacy rights - a discussion of the alteration of professionally sourced data”* - agreed that it should be progressed to ISO/TC215 for publication as an ISO Technical Report
- Suggestions by US Government representatives (led by Nancy Orvis, DoD) that there be a new Functional Model for individual HITSP-endorsed “Capabilities” (services components) aligned with the Healthcare SOA Reference Architecture (H-SOA-RA) V 2.0 [also known as EHR System Design Reference Model (EHR-SD RM)].

Under this scenario, the “Capability” is a fundamental service element available for re-use in different contexts and a system is defined as a stack of capabilities - with its design being realised through interface specifications. The aim is to build systems up by aggregating high fidelity services. The approach is compatible with the Federal Information Model for US federal agencies and would involve defining data elements and value sets from HITSP requirements (e.g for vaccination and adverse reporting) - then integrating services to handle them to address different perspectives - consumer, clinician, public health.

The overall aim would be to use the EHR-S as a catalogue of functions around which standardised service components might be constructed.

- Additional functional requirements and/or profiles needed to address clinical quality measures - with additional joint sessions to be planned at upcoming WGMs to accommodate this rapidly growing need.
- In joint session with Security and Structured Documents - needs to include contemporary security and role-based access control capabilities into EHR-S FM R2 to address the consent issue were discussed - and how this might be achieved without adding a complex web of additional requirements to each function in the model. (Steve Hufnagel of US-VHA was the lead).

Following presentations and discussions at a joint session of the EHR WG, Security WG and Structured Documents CD, Richard Dixon Hughes responded to requests and circulated a background paper on current work and potential overlaps between various groups working independently on security, privacy, access control and identification.

- Update on the current status of the HL7 DCM work in a joint session of EHR with Patient Care (PC) and Public Health Emergency Response (PHER) - by William Goossen
- Progress with the Vital Records FP and its relationship to the VR domain analysis model (VR-DAM) project being carried out by PHER in response to US Government requirements. The VR-DAM project is developing a UML model and service specifications addressing all aspects of VR information processing. Ideally the two VR projects should meet international needs - so the two projects are seeking use cases from around the world (as well as the US) - Max Walker has already provided information and expertise from DHS Victoria. One of the problems (in the US) is that most clinics that provide VR data do not automatically collect it in their EHR systems - so there is a need for SOA, messages and stand-alone collection systems that feed central records systems.
- Presentation by Anna Orlova of the Public Health Data Standards Consortium (PHDSC) on the PHDSC Ad Hoc EHR-PH Task Force being formed to progress a roadmap for health information systems interoperability for public health. The work picks up from a 2004 review that resulted in progressive development of HITSP interoperability specifications for public health applications: Biosurveillance (IS 02); Immunization and Emergency Response (IS 10); Public Health Case Reporting (IS 11); and Quality (IS 06). Maternal and Child Health and Newborn Screening specifications are also under development.

The proposed review includes consideration of the need for a separate EHR functional model for public health systems. From a view point of overall consistency, it would make more sense if public health requirements and profiles were to be addressed in EHR-S FM R2, rather than spawning off yet another small standards body focussing on part of the problem. The need has close parallels with Cancer reporting works (caBIG) being done through NCI, which uses EHR-S FM and other HL7 specifications. For more information:

http://www.phdsc.org/health_info/ehr-task-force.asp

- Feedback on US experiences using certified EHR systems as part of quality improvement networks and potential applicability to the international community (Gora Datta and Kim Salamone).

- Review of EHR-S FM interest and usage around the world:
 - In Mexico, the EHR-S FM has been translated to Spanish and applied under legislation that supports the use of EHR systems.
 - Canada is in the early stages of considering its use. Certifying interoperability, rather than systems functionality, has been the primary focus.
 - In Japan, the EHR-S FM has been translated into Japanese and applied. It should be noted that the "PHR" is not a familiar concept in Japan.
 - The Dutch focus on EHR has been on the behavioural aspects
- Question from Andrew Howard (NEHTA). What about conformance and certification?
- Don Mon (VP AHIMA) responded that he, Harry Rhodes and Christine York were the first staff of CCHIT (Certification Commission for Health IT) when it was formed by AHIMA, HIMSS etc in response to a requirement of the previous US Administration. It was originally set up for certification of ambulatory care (GP/clinic) applications and then in other areas. The EHR-S FM conformance criteria were modified by CCHIT for use in their certification activities - which will be one of the matters addressed in EHR-S FM R2 as this is all brought back together.

Required actions: Watching brief for future development, participation in EHR WG work to the level of resources available and including information on EHR-S FM, functional profiles and certification in educational material to inform the Australian healthcare community and avoid duplication. Possible development of Australian functional profiles as part of new eHealth agenda (if incentives are part of the package)

Action by: IT-014 (particularly IT-014-09); NEHTA; DoHA and HL7 Australia.

Update of EHR-S FM to R2

The bulk of the update process involves considering each of the 187 functional areas in the EHR-S FM Release 1 and reconciling additions, deletions and changes in light of the following inputs:

- Changes already applied to produce R1.1
- All comments received in producing R1.1 but deferred for later consideration (including international comments from the ISO 10781 DIS and FDIS ballots)
- EHR-S FM R2 - Parking lot for proposed changes and issues
- EHR WG deliberations from August 2009 onwards
- RM-ES(Record Management & Evidentiary Support) FP - content and use
- LTC (Long Term Care) FP - content and use
- BH (Behavioural Health) FP - content and use
- CH (Child Health) FP - content and use
- EDIS (Emergency Department Information System) FP - content and use
- Proposed VR (Vital Reporting) FP
- Other EHR FPs - development issues, content and use
- CCHIT Inpatient FP - content, use (including certification experience)
- HITSP interoperability specifications - including public health applications.
- HL7 Interoperability Model - incorporate and consolidate all relevant content
- HL7 Lifecycle Model [for Health Records] - incorporate/consolidate all relevant content
- PHR-S Functional Model and profiles
- ISO/TS 18308 Requirements for an EHR Architecture

- Support for new industry requirements - SOA, security, privacy, clinical quality, genomics, fraud management, certification etc
- US-NIH/NCI Ambulatory Oncology caEHR pilot of SAEAF using EHR-S FM
- Institutional Memory

There has already been fundamental thinking about whether the 3-part structure remains appropriate, whether the model should be split into more modules, the extent to which there is still duplication or overlap with the PHR-S FM and whether the definitive version can be rendered in a fully machine-processable form (with automated version control and text management). While these considerations continue, reconciliation work is being progressed around the present structure with the likelihood of some new functions being added.

To fast-track the work, AHIMA has hired summer interns to work through the existing functional profiles on the NIST website and enter them into comparative tables for review by EHR WG members working on R2.

Required action: (1) Getting volunteers to contribute to EHR WG weekly teleconferences as outlined above. (2) work with ISO/TC215, HL7/TSC, JWG and JIC to ensure that resulting standard meets international requirements and is accepted and progressed efficiently as a JIC joint work item (as proposed)

Action by: IT-014, IT-014-09, JWG and ISO/TC215/WG8 secretariats as Standards Australia) to progress collaborative aspects); NEHTA, HL7 Australia, IHE Australia (for awareness raising, adoption and potential use).

22 IHE

HL7 is keen to progress significant opportunities for collaboration with IHE International - particularly given the importance of IHE processes and profiles in defining real requirements for standards to support eHealth interoperability. Nevertheless, the full potential of collaboration with IHE cannot be realised until IHE becomes a separate, more accountable and properly incorporated legal entity. Although proposed for many months this has not been progressed to date.

Many large international suppliers of health IT systems are not prepared to participate in IHE activities until it is separately incorporated and can contract in its own right. The lack of a separate identity is also a barrier to IHE becoming a member of the JIC. HL7 is keen for any hurdles to incorporation to be overcome but does not publicly discuss why it has not progressed. HL7 is hoping that a way forward will emerge from an upcoming meeting being sponsored by EHRA/ HIMSS in Philadelphia.

Implications for Australia. The ability for IHE International to operate effectively, work with the entire supplier community and to collaborate equally with HL7 and other SDOs is of importance to Australia. It is in the interests of IHE Australia that the IHE incorporation issue be resolved to ensure that conduct of IHE activities cannot be challenged by any of the various bodies with interests in IHE International and its activities.

23 Infrastructure and Messaging

Grahame Grieve

Patrick Lloyd from Canada was elected as co-chair in replacement of Grahame Grieve. This is a welcome move, as it signals that Canada is once again serious about moving forwards with the messaging infrastructure that underlies V3, though there was no action in that regard this time.

The project to introduce nullFlavors into v2 has lapsed due to apparent lack of interest, much to the pleasure of the INM co-chairs.

Proposed Action: This lapse needs to be considered by the Australian HL7 community and MSIA to consider action if appropriate.

Action by:

24 Implementation and Conformance

Jane Gilbert

IC continued working with other committees to inform them about IC and the need for consistent and compliant specifications to be developed by all committees. Joint meetings were held with Vocabulary, ITS and Tooling.

There have been continued discussions with Charlie Mead (ArB) since Kyoto and in Atlanta on ensuring the Enterprise Conformance and Compliance Framework (ECCF) and current HL7 standards align in areas of consistent terminologies and concepts. As the ECCF develops concurrent improvements to the conformance and compliances sections of the HL7 standards, Version 2 (chapter 2B) and Version 3 (Refinement Constraint and Localisation) will be undertaken.

24.1 Table References in v2 Conformance Profiles

The US National Institute for Standards and Technology (NIST) indicate that there are problems with referencing tables in the v2 conformance profiles, they propose that the table references be moved to another file and details of unique identifier (=OID) and locator (=URI/URL) need to be worked out, NIST will do this work and report back (See proposals #602/#613 for details).

Proposed Action: Determine if there is usage of conformance profiles in Australia and if there is can we have input into this. Should Standards Australia also be looking at developing Conformance Profiles for all of their v2 Standards? This would assist with implementation and conformance testing.

Action by: IT-14-6-x, NEHTA , IHE Australia.

24.2 Conformance Statements

Discussion around the need for guidance on inclusion of conformance statements/assertions in the standards, to ensure explicit specification and consistency. Jane Gilbert to draft a white paper on conformance statements/assertions and how to use these in the standards, independent of v2/v3 and then guidance on 'how to' in v2/v3/CDA etc.

Proposed Action: This work directly relates to Standards Australia's desire to include more conformance assertions in their standards, it will make IT-14-6-x committees' job easier if this type of information is included at the international standard level.

Action by: IT-14-6-x, NEHTA, IHE Australia

24.3 Compliance of Specifications

Discussion around compliance of specifications to the standard, this is a major issue as most groups within HL7 are creating their own domain specifications without real guidance on creation of these specifications. It is also noted that the standard needs to clarify that regardless of a 'profiles' compliance to the standard that in terms of an implementations conformance to a profile, the profile is the one source of truth.

Proposed Action: This clarification on the profile being the source of truth will mean that AS4700.x variations to the International Standard will be recognised as a National profile and International vendors cannot assert that they are conformant to the International Standard if they are required to implement the Australian Standard.

Action by: IT-14-6-x, NEHTA, IHE Australia, State Health Departments

24.4 Conformance Profile - Constraints

NIST have proposed to include in the standard a common method for identifying profile constraints that are open to multiple interpretations, where the standard is not explicit on constraints, how different testing tools interpret these ambiguities and move towards a single interpretation.

Proposed Action: Clarification on ambiguities in the standard will help with conformance testing and dispute resolution.

Action by: IT-14-6-x, NEHTA, IHE Australia, State Health Departments, Vendors, Purchasers

24.5 Conformance Profile - Version ID

NIST have proposed inclusion of a 'conformance profile' version ID to be included in the v2 conformance profile definition, this will allow identification of the version of the conformance profile in use as to determine the level of specificity in the profile, as new features were introduced in each conformance profile iteration.

Proposed Action: Inclusion of a conformance profile version ID will help with conformance testing and dispute resolution.

Action by: IT-14-6-x, NEHTA , IHE Australia, State Health Departments, Vendors, Purchasers

24.6 Conformance Profile - Segment Version ID

NIST have proposed to add a 'segment version id' in the case of a certain segment being from a different version to the rest of the message. Lengthy discussion around the reason this might be done. Australia have done this when they pulled in the REL segment from 2.6 into the 2.4 Referral message.

Proposed Action: Clarify with IT-14-6-6 why the REL was bought back into 2.4? and why the whole message wasn't upgraded to 2.6?

Of Interest to: IT-14-6-6, NEHTA

24.7 Conformance Profile – Repetition Definition

NIST have proposed the inclusion of specification of repetitions in conformance profile. Allows specification of usage for repetitions ie: 1st repetition of PID-3 must be 1 & 3 R and 2nd repetition must be only 1st R. It was suggested that instead of specifying for a certain repetition that it would make more sense to be conditional, so if a certain component has a value then use this usage, ie if id number is medicare so type=MC then certain components are required. example: XPN.7="L" => XPN.1=R and XPN.2=RE

Proposed Action: Inclusion of a repetition specification in conformance profiles will help with conformance testing.

Of Interest to: IT-14-6-x, NEHTA, IHE Australia

24.8 Conformance Documentation Hierarchy

More discussion on proposal 605, conformance documentation hierarchy, after significant changes in Kyoto the proposal has now been included into chapter v2 – 2b. It was also agreed that this (and some of the other proposals are not only relevant for v2 but also v3. IC will review the v3 'Refinement Constraint and Localization' document for improvements in January.

Proposed Action: Detailed specification of conformance documentation will help determine not only if an implementation is non-conformant but where the issues are, this will assist in conformance testing and implementations.

Of interest to: IT-14-6-x, NEHTA , IHE Australia, State Health Departments, Purchasers

24.9 Version 3 Model Derivation Rules

Ian Townend from NHS presented the 'Message Implementation Manual' which they have developed, this document details model derivation rules that the NHS have discovered over 18 months, some are generic for HL7 and some are NHS specific, this was necessary as the standard does not specify the rules. The document can be found here: <https://www.uktcregistration.nss.cfh.nhs.uk/trud/>. IC will be reviewing this document to determine if some of the generic rules could be included in version 3 – Refinement Constraint and Localisation.

IHE Testing Terminology whitepaper. Frank Oemig has drafted a whitepaper for IHE to clarify terminology used in IHE profiles.

Proposed Action: This document will be useful for inclusion in Australian IHE profiles to ensure the same terminology is used when describing testing methods and conformance assertions.

Of Interest to: IT-14-6-x, NEHTA , IHE Australia

NIST have received a large amount of the OBAMA health funding to develop testing infrastructure, the overall view will be to develop in modules, utilize existing work and make all tools available. NIST are currently gathering requirements from HITSP/CCHIT to inform tenders which will be let early next year, only available for US companies/contractors. Some of the components are already useable and downloadable.

NIST HL7-Dashboard: http://141.156.15.209:8080/HL7dashboard_2.0/

Proposed Action: Australia should utilising testing and tooling work carried out as to not 'reinvent wheels'.

Of Interest to: NEHTA , IHE Australia

NIST have written a whitepaper on 'Testing Environments for Assessing Conformance and Interoperability of Healthcare Standards'. The paper details test evaluation criteria and testing environments.

Testing criterion cover different aspects:

- Data Content Validation
- Data Content Conformance Testing
- Protocol Usage Conformance Testing
- Testing Conformance to the Data Exchange Standard
- System Behaviour Conformance Testing
- Syntactic Interoperability Testing
- Semantic Interoperability Testing

The testing environments to carry out the tests can be categorised into the following and cover one or more criterion:

- Data Instance Testing Environment
- Isolated System Test Environment
- Peer-to-Peer System Test Environment

Proposed Action: Australia should be utilising this document to ensure any work on testing aligns with these definitions.

Of interest to: NEHTA , IHE Australia

Discussion around the need for Conformance Profiles for v3 (v3 models/terminology). There are schemas for v3/CDA however schema validation is not good enough to ensure conformance, this will no doubt be dependent on tooling availability.

Proposed Action: Australia should be involved in the definition of version 3 conformance profiles to ensure they are developed quickly and that any v3/CDA work undertaken in Australia is started conformingly to avoid the issues we have with version 2 implementations.

Of Interest to:: IT-14-6-x, NEHTA , IHE Australia

Demo of mapping tool by Robert Wood, tool developed as extensions to eclipse. Current mappings in progress: Pharmacy v2-v3; HIPAA x12-v3; CCR/CCD various; relational DB – v3 (basic). Model data to a common class model (from HL7 MIF) to perform translations.

Proposed Action: Evaluate potential use in Australia when moving from v2 to v3/CDA.

Of Interest to: IT-14-6-x, NEHTA , IHE Australia

25 Marketing Group and Marketing Council

The marketing plans produced at the May 2009 WGM in Kyoto were almost totally focussed on HL7 engaging with the incoming Obama administration in the United States and were not well received by the

wider HL7 community. In his report, the CEO indicated that HL7's marketing activities are now more inclusive of whole community of interest, particularly clinicians and the international community with the aim of broadening HL7's influence, as well as its sales of membership and standards. Specific marketing initiatives currently being progressed include:

- International marketing of education and training - particularly through expansion of the eLearning program
- The opportunity for a new membership category for universities to complement the University Program being developed by the Education Committee
- The provision of training in collaboration with strategic partners such as the AMIA capacity building initiative. A lack of appropriately skilled eHealth resources is becoming a potential barrier to widespread uptake of eHealth capabilities in the US and many other countries
- Co-branded events and collaborative activities with HIMSS/EHRA (formerly EHR Vendor Association) and IHE
- Pilot projects to investigate the potential of social media, specifically Twitter
- Better aligning HL7's marketing and public relations functions
- Progressing the Clinical Information Interchange Collaborative (CIIC) to increase clinical engagement - specifically through international outreach
- Proposed development of a "Matching" survey to identify products & services that members & attendees utilise
- Proposed development of a "Sales Dashboard" for measurement of revenue from marketing initiatives.

A review of the marketing strategy documentation shows that a strategy is suggested without definition of objectives, products, priorities or targeted communities, this has improved slightly but a more strategic and professionally balanced approach to marketing is required if the objectives are to be met.

Proposed Action: As part of the Australian review of the HL7 roadmap activities, and in light of the potential HL7 meeting in Australia in 2011 an Australian position on products, targeted markets and marketing objectives should be developed to inform both our activities and those of HL7 international. Include in potential workshop.

The University and Ambassador Programs are developing steadily as the current main activities of the Marketing Council.

A close relationship between the activities of the Marketing Council and the Education Committee has been fostered, particularly by Dr Jill Kaufman, who has promoted engagement with University programs as a means of producing a health informatics workforce attuned to the use of HL7 standards as the basis for eHealth interoperability. This is consistent with the inclusion of HL7 as one of the key organisations involved in the Australian Health Informatics Education Council of which Standards Australia are also a member.

The University Program aims to introduce HL7 into the training of relevant professionals so that they are already attuned to HL7 by the time they enter the workplace. This aim is being pursued through the following goals:

- Increase the number of Universities teaching HL7 Standards as part of MS/PhD Healthcare Informatics programs, globally
- Define (and potentially increase) HL7 benefits for Universities as members
- Increase University, faculty and student HL7 membership, participation (and technical contribution)

An HL7 University team has been formed with more intensive approaches to universities, initially in the United States, leading to creation of a curriculum and development of introductory teaching units that can be taught separately or in combination. Phase 1 is PowerPoint set that can support about 5 to 6 hours of lectures. It is being piloted at Columbia University in the Fall 2009 Semester and, following review, will be further piloted in Sprint 2010 at North Western University, North Eastern University, Auburn University and possibly others. A follow-up survey of faculty is planned for evaluation, feedback and improvement. The Marketing Council would like more involvement of Affiliates.

Discussion by the Affiliates focussed on the difference between engaging with universities for marketing and as part of mainstream academic programs. There is around 60 hours of HL7 educational material that has

been taught in some European Universities for over 5 years, which does not seem to have been considered. Good universities need rigorous material that considers alternatives and challenges the status quo.

The Ambassador Program provides standardized short presentations for use at meetings and conferences to promote awareness of key HL7 technical work. There are 8 approved presentation, with HL7v2 being developed as a new topic. There are currently 26 HL7 Ambassadors, of which Klaus Veil is the only Australian.

The first draft of the Introduction to HL7 V2 "talk" was presented for critique. Following a lot of input a second draft will be prepared in the coming weeks.

26 Modelling and Methodology

Grahame Grieve

The RIM and R2 datatypes have passed ballot and will be completed soon. Core Principles balloting continues, though the document will soon be folded into the rewritten SAEAF - though there are many open procedural issues there.

MnM spent much time this meeting considering various forms of formalising grammar for care plans and related queries. The exact outcomes will surely cause distress at some time in the future due to their complexity, but this is a complex problem - and general solutions are always less fit for a particular approach for that particular purpose.

27 Patient Administration

Klaus Veil, Max Walker

The PA Working Group met all week. The main topics discussed were:

- V3 Registries enhancements for social services
- V3 Encounter / scheduling
- V3 CMET needs of Clinical Statement and Patient Safety
- V2.8:
- A Joint Meeting with the SOA WG

Patient Administration has been doing some work on Behavioural Patterns for Role Registries. This work has evolved to point where a new joint project with Services Orientated Architecture (SOA) has been launched.

This Registry Services Project will utilise the SOA Entity Identification Service (EIS) and will use the Healthcare, Community Services and Provider Directory Services project as both an input and output.

Overall, there are no "hot issues" affecting Australian implementations, however as PA is central to all healthcare messaging, our close watch needs to be maintained!

Committee web site: www.HL7.org/Special/committees/pafm/index.cfm

Proposed Action: Report back to IT-014-06-03

Action by: Klaus Veil, IT-014-06-03 Co-chair

28 Patient Care

Klaus Veil, Hugh Leslie

The PC Working Group met all week.

At this meeting, Klaus Veil was confirmed as V2.x Co-chair, so enabling the committee to progress the Australia V2.x messaging needs – in the past the PC committee leadership had not supported any substantial V2.x work. This is a good step forward to ensure the Australian requirements are included in HL7

V2.8.

There was some discussion about requirements for the DCM project such as the need for a final HL7 Template formalism to be produced and a debate about whether the DCM work should become a Joint Interoperability Council project. It was felt that there needs to be some agreement within HL7 and ISO before this could happen.

There was a discussion about how to get some consistency between the different clinical working groups where there didn't seem to be enough peer review and where modelling was inconsistent between the different groups as well as lots of rework where the same concepts were modelled multiple times and in different ways. It was understood that tooling was an important part of this and that until sophisticated tooling was available, that this would continue to be an issue.

A joint meeting of the Orders and Observation work group with Patient Care again discussed the need for consistency of representation of content. Using SNOMED CT as a metric, it was discussed that there is likely to be 10,000 HL7 templates (and hence 10,000 DCMs) needed.

Max Walker presented the Service Functional Model Specification to a joint PC, CIC, CBCC and PEHR WG meeting.

Normative ballot went well with only one block of negatives – 3 objections with one negative major – HL7 standards not mentioned (SOA requirement). This may need to go to ARB to decide the issue.

Max Walker also presented the previously proposed SOA project from David Rowed. The outcome is to redefine scope and to make sure that there is no overlap with SAEAF etc.

There was a presentation of some work by the National Centre for Disease Statistics (NCHS) on Internationalising Domain analysis model for Vital Registration. The NCHS collects and disseminates the official vital stats for the USA. The eVitals Project is developing the HL7 EHR –S Vital Registration functional Profile. This project is currently looking at using HL7 v2 message to collect the data. Collecting this information at the point of care is difficult to achieve because of concerns around data quality. The project is keen to get input from other jurisdictions so that this work can become international. They already have input from Victoria, Australia through Max Walker and would welcome input from other jurisdictions.

Proposed Action: Australian jurisdictions should be encouraged to contribute to the eVitals project so that harmonisation of Vital statistics collections can occur on a global basis.
Report back to IT-014-06-06

Action by: IT14, NEHTA
Klaus Veil, IT-014-06 Co-chair

Committee web site: www.HL7.org/Special/committees/patientcare/index.cfm

29 Pharmacy

Stephen Chu

The Pharmacy WG met from Monday through to Thursday.

Topics discussed include [excluding ballot reconciliation details]:

- Alignment between "Medication" DMIM (produced by the Pharmacy WG) and "Common Product Model" (result of harmonization of "Medication" models produced by other WG such as Patient Care).
As "Medication" DMIM and "Common Product Model" evolve/change, alignments of the two models will need to be done. CMETs from the aligned models will need to be produced. The new CMETs will have new identifiers.
The Medication Model is designed for description of Medicines as products similar to the medication literature. Question was raised by the Australia delegate on whether RMIM from this model has been

developed for updating medication knowledgebase use case. It was confirmed that no such proposal had been submitted.

Proposed Action: Given that Australia is in the process of implementing a National Product Catalogue, it is worth consider developing use case(s) on NPC contents update and query and to support a formal project/work item proposal to the Pharmacy WG.

- Alignment between "Pharmacy" Model (Medication Orders, Dispensing Notification), Clinical Statement Pattern and CDA
Medication order and administration ACTs have been added in Clinical Statement Pattern choice boxes to support medication order to ensure consistency with Pharmacy model.
Australian delegate raised for discussion the use of CDA as exchange format for prescription order and dispensing notification. The preference of Pharmacy WG was to use RMIMs derived from the Pharmacy model for such purposes, but conceded that it would not be possible to prevent such use (as in the cases of Finish and New Zealand implementations).
There is general concern of the inability of CDA to express the workflow instructions. It appears that this can be addressed by "adjusting the models to support the addition of a document element to a ControlAct.
Pharmacy WG has proposed to Structure Document WG that "all contents [in CDA] dealing with prescription, dispensing, or administration of medications should be drawn from the Pharmacy DMIM, and should ideally be based on CMETs maintained by the Pharmacy WG". This proposal has the support of the SDWG co-chair (Bob Dolin) and it was suggested (Cecil Lynch) that this proposal should be progressed through the Architecture (review) Board.

Proposed Action: it is beneficial for Australia/NEHTA to participate and contribute to the Pharmacy model/Clinical Statement Pattern/CDA alignment work to ensure that the clinical statement pattern to be included in CDA R3 can adequately represent medication order, dispensing notification information requirement.

29.1 IDMP (Identification of Medicinal Products)

Stephen Chu and Richard Dixon Hughes

This is a project sponsored by ISO/TC215 with the object to develop a structure suitable for holding information to adequately identify medicinal products. Latest ballot produced in total 762 pages of comments across the 5 IDMP package contents. Some of these comments were duplicates (submitted via different organisations). Resolutions of these comments would require significant amount of time and work. Once the structure is developed and passes ISO ballot processes, IDMP repository/repositories can be developed to hold the contents. In theory, SNOMED can contribute to the contents.

Progress on the project and also the desire to align this work with Common Product Model (CPM) were discussed. The objective is to engage HL7 members (Pharmacy WG in particular) to engage in the IDMP work with the aim to conduct informative HL7 ballot in parallel with the next ISO ballot (expected to be in May 2010). Pharmacy WG's position is that the CPM "should act as the parent for all CMETs that refer to products, including medications.

The IDMP project team proposed a "co-lead" with HL7 to progress the package development and ballot processes, preferably through the HL7 ballot mechanism as well, although the exact nature and format would need to be determined/negotiated. At this stage there is no discussion on "post alignment" strategy/direction, i.e. whether Pharmacy WG would be requested to develop message profiles for updating and query of the IDMP repository.

Proposed Action: It seems that this project has overlaps/similarity with Australia's National Product Catalogue (NPC) project. A close watch and influence on its development will be desirable such that both projects can inform each other and achieve better alignment.

Because of the time taken to arrive at a ballot draft, this joint activity (comprising 5 related standards) had lapsed under ISO progression rules and was resubmitted for NWIP ballot to "restart the clock" with the current documentation as working drafts. The NWIP ballot had passed and attracted about 700 comments. The value of continuing this joint work, which was originally commissioned by ICH and EMaA is starting to be

questioned by ISO members as well as HL7. ISO/TC215 Working Group 6 (Pharmacy) had convened a Task Group to work on ballot resolution at another collocated in Atlanta and overlapping the final two days of the HL7 WGM. The decision to hold this meeting in parallel (apparently without consulting HL7) attracted some criticism.

Implications for Australia. The slow progress and questionable quality of the work on IDMP is starting to raise questions about the credibility of TC215, its processes and participants.

Proposed Action: IT-014 needs to consider seeking views from relevant experts as to whether these activities are well founded and, if not, whether Australia should support their continuation.

Suggested Organisations: IT 014 and NEHTA (Medicines Terminology)

29.2 Route of Administration of Medicinal Substances (AfMS) project

This project, initiated from a decision at the 2007 January WGM by the Pharmacy WG, was intended to "clean up" the "faulty value set" of the Route of Administration codes that evolved from HL7 V2.x use. This value set contains code values for pre-coordinated terms that concatenated route, site and methods of administration, some also include devices.

In an attempt to "clean up" the value set, a "pure route of administration" value set based on the Canadian project was proposed for discussion. Despite the best efforts, the "pure route" value set still contained values that were not "pure route" by definition, e.g. "aminotic fluid", "biliary".

It was agreed that instead of creating a "pure route" value set, efforts should be directed towards rectifying confusions in the HL7 route of administration code value set, identifying "abstract route" values and add "pure route" values as specialisation and identify "sites" values that may be legally associated with the appropriate route values. Progresses will be reviewed in further conference calls and WGM.

The Australian delegate recommended that as far as possible, the value set should be aligned with SNOMED-CT "route" values.

At the request of Pharmacy WG, "methodCode" has been added in the Procedure hierarchy of the RIM to support a method of administration attribute. The Pharmacy WG needs to review and update the Pharmacy model accordingly and to include the "method" code to AfMS.

Proposed Action: Australia to engage in and contribute to the cleaning up/refinement of the route of administration value set.

29.3 EHR Functional Model R2 and Pharmacy

There has been lack of Pharmacy engagement with EHR WG so far. This is recognised as a significant issue that needs to be addressed.

NCPDP has a project working on an e-prescribing functional model (vendor requirements) for vendors to assess their e-prescribing applications against the list of functional profile. This project is progressing quite rapidly.

Pharmacy WG decides to perform "stock take" on EHR WG work. Engagement strategy to be added as a topic for discussion at upcoming teleconference calls.

Proposed Action: Australia/NeHTA to monitor the development of e-prescribing functional profile in EHR R2 project.

29.4 V2-V3 Mapping Tool

Robert Worden demonstrated a "V2.x-V3 Mapping" tool at one of the Pharmacy meeting sessions. Robert and his colleague developed a "mapper editor" which was ported into the Eclipse EMF environment. It was claimed that the mapper editor tool can map v2.x message structures to other data sources (such as V3 message structure and CDA), V3 to other data sources and CCR to CCD. Translations between data formats are generated from the mappings.

It was argued that most mapping tools only map data values (i.e. leaves of message trees) and that structural clashes arise on non-leaf nodes deep in the tree. Such clashes could not be handled properly by

most mapping tools. It was claimed that the demonstrated "mapper editor" attempted to solve the problem by mapping the source message structure to the semantic model of the target information structure, e.g. CCR to CCD semantic model.

Business model: Robert Worden expressed keen desire for the tools to be adopted widely. A subscription fee of US\$100 per user license has currently been set.

Issue: the mapping tool is still under development and it is unclear how it may take for a wide coverage of different domain requirements can be met and the reliability of the tool. Equally unclear is the quality of the mapping, i.e. the semantic equivalence of the source and target data. While the demonstration showed reasonably good quality output. Machine validation of semantic equivalence is not available and it is unclear that it will be.

Committee website:

<http://www.hl7.org/Special/committees/medication/index.cfm>

30 Public Health Emergency Response

Max Walker

Vital Statistics Project has been broadened to include Victorian data in the model to allow for comparisons and the identification commonalities and differences (most of the Vic data fitted quite well into the US model). This was presented to the Affiliates Council and the joint Patient Care, Community Based Collaborative Care, Public Health & Emergency Response and Clinical Interoperability Council meeting as "Internationalising the Vital Registration Domain Analysis Model".

This activity sparked further interest with countries such as Finland showing interest.

PHER is also working on a HL7 V2.5.1 Laboratory Messaging Implementation Guide.

Committee Web Site: www.HL7.org/Special/committees/pher/index.cfm

31 Publishing (V2.x)

Klaus Veil

The Publishing Working Group met Thursday afternoon and reviewed the V2.7 publication status. After the completion of the remaining editorial procedures, it is expected that V2.7 will be published early December 2009.

The committee editors reported that the work on V2.8 is progressing well and the balloting may commence mid-2010 with the view to publication end 2011. At this meeting, Klaus Veil was re-elected as V2.x Publishing Co-chair

Committee web site: www.HL7.org/Special/committees/publishing/index.cfm

Proposed Action: Report back to IT-014 and HL7 Australia

Action by: Klaus Veil, IT-014 Member

32 Security

There was a strong emphasis on mainstream IT solutions for HL7 security work. Much is based around the overlap of membership between HITSP and IHE security groups and HL7.

The HITSP Use Cases drives common security constructs. Patient-centric use case includes:

- Patient choice, control, and segmentation of information
- Use disclosure and secondary use
- Models of data storage and exchange, aggregation, and de-identification
- Transparency, audit, and accountability

Work was completed on the RBAC permission catalogue (and is now in use by HITSP). This covers an information model and actions of EHR systems (see EHR FM). There was some frustration in trying to map this to SNOMED CT as much of the terminology requirements is administrative and not medical with respect to RBAC.

Many challenges formalising privacy as little work has been done to use a computable privacy formalism rather than anecdotal principles.

PASS is looking to ballot their work in January meeting. The charter has been approved by the ArB and TSC. Covers access control, federated identity, audit, and consumer preference/consent.

HL7 Japan have guide on Digital Signatures in CDA. This will be translated and provided to security group for analysis (in Japanese currently).

HL7 is looking to harmonise with OASIS profiles so as to correctly use SAML, XACML, and XSPA profiles.

ISO 22600 (Privilege Management and Access Control) work to support EHR privacy protections awaiting resourcing.

There is an opportunity for a security architecture contribution to SAEAF but this awaits maturity of SAEAF outcomes.

New project proposal on Privacy by Design where privacy protection is engineered into systems at the outset. Kaiser resources have been volunteered for the effort.

CCOW to take up SAML assertions so as to better work with SAML-based security infrastructures. Content for assertions still under discussion.

Liberty Alliance still an authoritative source for SAML use.

Committee web site: www.HL7.org/Special/committees/secure/index.cfm

33 Services-Oriented Architecture (SOA)

Vince, McCauley, Max Walker

CTS2 is still seen as a strong investment for HL7. Standardisation through OMG is still proving difficult due to the assumed information model incorporated with the proposed specification. It was proposed that an information metamodel be extracted from the MIF to be included with the OMG work without necessarily requiring other aspects of the MIF to be added in.

SOA has the job over the next few weeks to work out a course of action to resolve the problem highlighted by the Healthcare, Community Services and Provider Directory Services project, i.e. should Standards be referenced in a Services Functional Model Specification or not.

The SOA working group was hampered at this meeting by the fact that two out of three Co-chairs were unavailable at the last minute, leaving a single co-chair to run all business. One of these Co-chairs resigned on the second day of the WGM. I was drafted to help spread the load until an interim Co-Chair could be elected on the last day that the SOA Committee met. Don Jorgenson was elected unopposed but will need to be confirmed at the WGM. This restricted my ability to cover topics other than SOA.

33.1 Highlights

HSSP process revised following completion of first end to end cycle and issues raised by HL7

Enterprise Identity Service (EIS) Ballot had all outstanding comments successfully resolved and will now be submitted for Publication.

Name of EIS changed to IXS (Identity Cross-reference Service)

An Australian led proposal for a Primary Care Clinical coordination service was proposed and accepted for further development.

SOA approach further aligned with the SAEAF initiative.

The SOA Committee is the HL7 International side of the Health Services Specification Project (HSSP). See Appendix B for further detail about HSSP. In addition the SOA Committee provides Service oriented input and expertise to other HL7 Committees and Working Groups. Current HSSP work can be viewed on the HSSP wiki <http://hssp.wikispaces.com>. All SOA documents referenced in this report can be found on the HSSP wiki.

33.2 Current HSSP component service status

Entity Identification Service (EIS) –The Normative ballot for final standard was completed at this working group with successful resolution and disposal of final comments from the UK NHS and USA VA. The name of the service for final publication will be changed to Identity Cross-reference Service (IXS)

One OMG Implementation Specification for this Standard is of the IHE PIX/PDQ (IHE Patient Identity Profile) as a specific instance of IXS

Retrieve, Locate, Update Service (RLUS) – This Service has completed work at OMG but HL7 final ballot has been delayed while the Identity Service Ballot was being completed. It will be submitted for ballot at the next cycle prior to the January WGM.

The HL7 ballot documentation is currently being prepared. The OMG implementation specification includes the IHE XDS Profile (Cross Enterprise Document Sharing) as a platform specific instance of RLUS

Health Services Director Service (HSDS) –

The work on this service is being led by Max Walker from DHS Victoria. A completed Functional Specification and associated documentation was submitted for initial non-normative ballot in the current cycle. Many comments were received and these are taking some time to resolve by weekly telephone conference. A revised document will be submitted for DSTU ballot prior to the January WGM.

Clinical Decision Support Service (CDSS) – completed HL7 DSTU ballot. There have been some further delays in OMG and the OMG Technical Specification is due to be completed in Dec 09. It is anticipated this will now be ready for final HL7 Ballot at the May 2010 WGM.

A great deal of time at this WGM was spent reviewing the current HSSP process. This followed concerns raised at the Technical Steering Committee (TSC) by some members of the Vocabulary group about the current process. The issues were related to the Clinical Terminology Service (V2) (CTS2) which had recently passed DSTU ballot and been submitted to OMG. However, there were concerns that the comment resolution process for the DSTU Ballot, whilst technically achieving the required level of consensus, had not adequately reflected all HL7 views. The Technical Steering Committee after some debate, resolved to recall the DSTU for CTS2 to allow further input from HL7.

As part of this debate, concerns were raised that the HSSP process at OMG was too opaque and did not necessarily result in specifications that were applicable to HL7 artifacts. Consequently a number of SOA sessions were used to review the current process and a revised process was developed. This will be presented to the TSC for ratification in the near future.

In addition it was agreed to refresh the HSSP Service Specification Framework to align more closely with the overarching HL7 Service Framework embodied in SAEAF.

In order to free up SOA meeting time resources, at future WGM it is planned that SOA will provide and train Facilitators/Advocates in other relevant Committees, and reduce the number of joint Committee meetings which are largely educational.

33.3 New Australian Lead initiative in Primary Care Coordination

Dr David Rowed had prepared a proposal for a new service for Primary Care Management Service. However, he was unable to attend at the last minute for medical reasons and subsequently asked myself and Max Walker to present his proposal to the SOA and Patient Care Committees.

The SOA Committee welcomed this proposal and worked within the session to further define the title, scope and description of the new work item proposal to go to the TSC for ratification. The new processes put in place in the last 6 months now require all new Service proposals to be owned by one of the Clinical Committees and jointly managed with the SOA Committee. Subsequently the Patient Care committee agreed to take on this proposal and second the proposal at the TSC.

This work item will require significant resources and it appears may be able to leverage previous work done by HITSP and interest from the US Department of Defence, US Veterans Affairs and the UK Primary Care group.

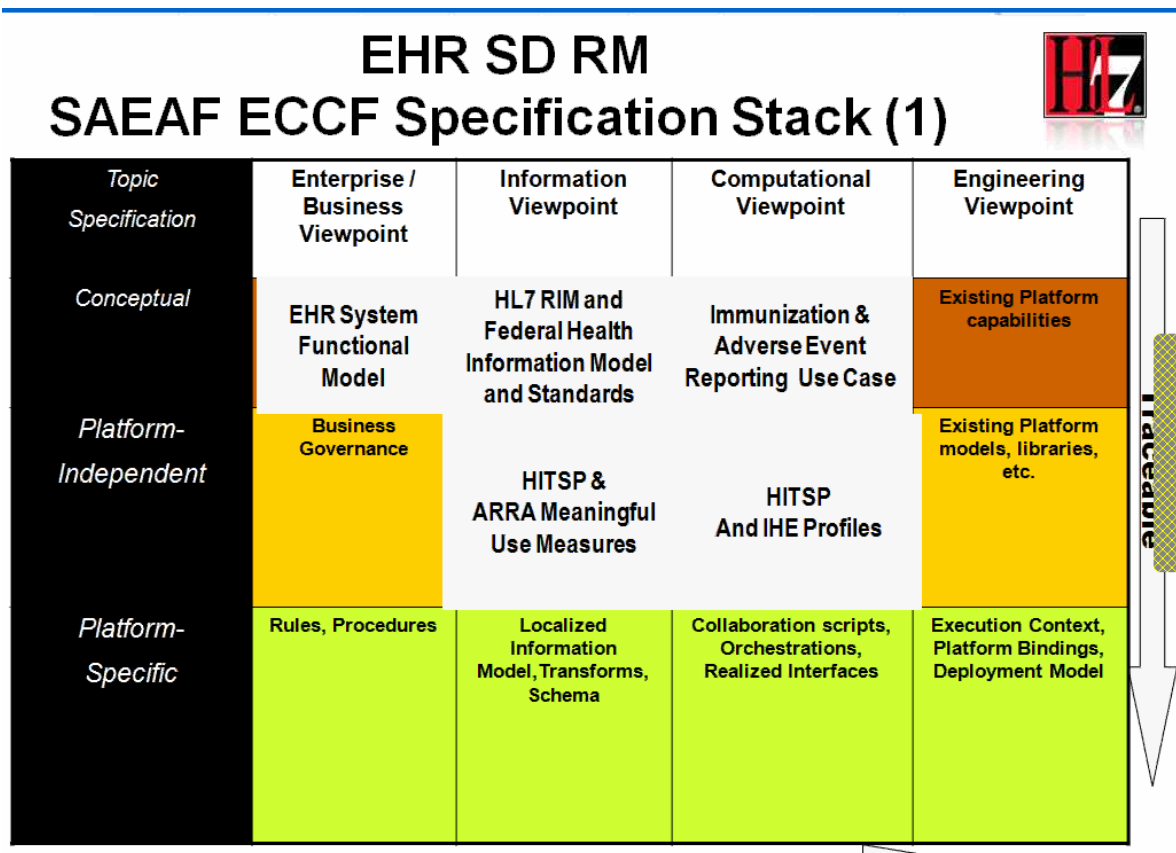
33.4 SAEAF, SOA and Alpha projects

As part of the testing and implementation of the SAEAF initiative HL7 has approved a number of alpha projects. These include:

- Privacy Access and Security Services (PASS) (previously an HSSP project)
- Clinical Terminology Services V2 (CTS2)
- caEHR
- Clinical Document Architecture (CDA) Release 3
- EHR Functional Model
- Specimen Management Service (Orders and Observations (OO) Committee)

Of these PASS and CTS2 are the most mature. Joint sessions were held with the Terminology and Security Committees to progress these projects and discuss the process of aligning them more closely with SAEAF.

These projects are currently aligning existing artefacts to the requirements for SAEAF. Below is the current state of such work for the EHR Functional Model



Typically the lower layers of the Service based approach are being realised through Integrating the Health enterprise (IHE) profiles.

33.5 The Practical Guide for SOA in Healthcare

This completed document (Parts 1 and 2) can be accessed at <http://hssp.wikispaces.com/practicalguide>

It documents the HSSP process and the Service Development Framework (SDF) used by HSSP. It is a remarkably accessible document and recommended reading.

The document is currently being revised to include information learnt from the recently completed first full HSSP cycle and to incorporate the relationship with HL7's Service Aware Enterprise Architecture Framework (SAEAF).

The revised document will contain more detail about how a platform independent service can be developed into a particular service instance implementation including how to specify conformance criteria, service behaviour and shared terminology. In particular it will be extended to include analysis of HITSP, HSSP, HL7 SAEAF, US Federal Enterprise Architecture, and other industry reference sources to elaborate a mature healthcare SOA Reference Architecture.

33.6 Relationship of HL7 and OMG

One of the concerns arising from the HL7 adoption of SAEAF, was that service development work would be undertaken more in HL7 Committees and lead to a weakening of ties with OMG, despite the fact that the HSSP process has been working well.

The CEO of OMG Richard Stacey again attended the HL7 Board meeting.

Once again the SOA group spent considerable time at this meeting educating those committees involved with clinical and administrative content about what SOA is and how SOA can be incorporated into the current work plans of those Committees.

SOA emphasized that HL7 is a member of OMG and can through their nominee, John Quinn, (HL7 CIO) take part in the OMG processes. SOA completed work on some minor modifications to the HSSP process to increase transparency and ensure that OMG specifications reference HL7 artefacts wherever possible.

33.7 Joint meeting of SOA and IHE

This meeting was very well attended a number of interesting papers were presented exploring the relationship between HL7/HSSP services and IHE service based profiles.

The presentations from this meeting are available on the HSSP wiki.

33.8 Decision Support

Work within IHE on Clinical Decision support was being prototyped using the Immunization Care plan Profile being developed by the patient care committee (See [IHE_PCC_Request_for_Clinical_guidance](#) profile at www.ihe.net.au). Of particular interest in this work is Appendix F which shows a map of CDA to the Continuity of Care Record i.e. a document to a message mapping.

There was considerable discussion of the relationship between this work and the SOA HL7 Decision Support Service. In general it was thought these two specifications were complementary with the HL7 Service having additional metadata support for data and decision engine versioning, infobutton, immunization and genomics. Thus the HL7 Decision Support Service can be seen as providing and orchestrating capability for Decision Support with IHE providing some of the building blocks (instruments) and these approaches appeared to be a good fit. The Security issues around decision support and services were being examined as a separate and on-going area of work both within OMG and IHE..

John Moerke presented a paper on "Lessons learned while introducing SOA to IHE". Of particular note was the need for consistent Terminology to describe SOA across different groups. There is ongoing work to produce a standard/consistent nomenclature within IHE to describe its content. Part of this paper provides a map between SOA and IHE terms for artefacts and processes, further information is available at:

ftp://ftp.ihe.net/IT_Infrastructure/iheitiyr7-2009-2010/Technical_Cmte/Whitepaper_Work/SOA_White_Paper/Final%20Draft/IHE_ITI_TF_WhitePaper_SOA_2009_09_17_final.doc

Steve Hufnagel gave a presentation on his work, mapping existing HL7 and HITSP artefacts to the IHE and HL7 SAEAF paradigms.

Overall it was pleasing to see the level of interdigitation between HL7 and IHE participants with many HL7 committee members also representing their companies at IHE. This has resulted in a consistency of view and clearer delineation of roles than has recently been seen with HL7 and OMG.

34 Structured Documents

Grahame Grieve, Jane Gilbert

This working group are coming up to 5 year anniversary for CDAR2. Need to work through strategies for solving the RHS CDAR3 problem. Alternatives include using the Clinical Statement model or RIM model with constraints around dynamic model.

Structured Documents is busy working through many implementation guides for CDA R2. The very success of implementation guides (there are many of them now) is bringing forward some pain. Notably these are:

- the need for consistency between the various implementation guides, and other HL7 models. (This is particularly exacerbated by the fact that some of the Implementation Guides are being produced by IHE and HITSP)
- the need for tooling to produce consistent implementation guides * the problems of implementing templates, which do not have their own schema.

There is a particular problem here that HITSP has endorsed CCD, and applied it to a variety of interesting use cases that are really outside the scope of a CCD document.

The working group is now focusing on bringing forward a new version of the CDA (R3). Many proposals with a narrow scope have been made on the wiki. There is a wider question, which is what the "right hand side" of the CDA model will look like. The question here is what general model will be used for the detailed data representation. It appears that considerable change is on the table in this respect, and accordingly, there is considerable contention as to what SD should do (RIM, clinical statement, committee CMETS?). One key question is what the scope of CDA is - there are a variety of views on that. Another is the problem of achieving consistency at ever higher clinical levels within HL7.

Other issues include: a variety of demands have been put on CDA including administration and financial data, varying levels of CDA, limiting CDA schemas for implementers, internal cross-domain consistency, validation of extensions, formalisation of best practice.

Structured Documents have a new project – CDA implementation guide – **generic procedure note**. This will be a Draft Standard for Trial Use (DSTU) with a sample file i.e. the instance for endoscopy. It is refined down to CDA level 2 – for the universal realm. CIC will sponsor this project.

There was also discussion around Implementation guidance for using OID's in CDA, should this be more general v3 and not just CDA?

Proposed Action: Check to see if Australia or NeHTA have done any work in this area and if it is an issue for us?

Action by: IT-14-6-x, NEHTA

35 Templates

Hugh Leslie

A joint Patient Care and Templates meeting discussed the Templates Registry Business Requirements that have been drawn up.

A Templates registry is an information system that stores administrative and classification metadata about templates. Its primary purpose is to help users rapidly locate templates by searching the available administrative and classification metadata. A templates registry has a formal template submission and publishing approval process. Each template is reviewed by its authors and an appropriate organization that has an appropriate legal agreement with the template registry that includes IP rights for the template. Once the template registry has received a given template (or group of templates) appropriate change control processes are used. This allows collaboration in the registration and use of templates by implementing a governance process. A templates registry will also support documenting the approval of a registered

template or group of registered templates by one or more organizational entities.

There was a lot of discussion about this project when it was realised that this was a **registry** rather than a **repository**. The difference is that the registry stores and supports only metadata about an artefact and not the artefact itself. There was concern that the registry may be difficult and costly to maintain while not providing much in terms of gain to end users.

There was a discussion around governance, however I believe that the registry approach will make true governance impossible as there is no control over the provenance of any artefacts as these are controlled separately from the registry itself and are not controlled like software artefacts.

The *openEHR* foundation's Clinical Knowledge Manager (CKM) was one of the approaches looked at as an example of a repository of clinical artefacts. This is a very successful approach with the number of users now exceeding 300 from 45 different countries and clinicians from every health domain participating in review and publishing of clinical models. The CKM does control the artefacts in a repository so that a full version history can be automatically obtained and complete control and governance of these artefacts occurs.

Proposed Action: NEHTA and/or Standards Australia look at a national approach for Australia in governance of clinical models that can be validated, reviewed and published with involvement of the wider clinical community in Australia. The approach used should enable the participation of non technical clinical users.

36 Tooling

Richard Dixon Hughes

The HL7 Board has decided that the quality of Tooling for version 3 is a major inhibitor to uptake. They have been advised that they need to spend upwards of US\$3.2 million to address this! As an initial move towards "a stable environment for developing and publishing V3" they have agreed to halve the HL7 reserves to six months operating costs and to increase spending on Tool development from \$100K to \$220K in 2010. In addition HL7 have commissioned a commercial Technical writer (Karen Smith) to revise and extend the SAEAF Documentation.

Upgrades to the current Tool set are in late development and will be available for download from www.HL7.org shortly

This meeting was impacted by the need for senior members of the tooling group and Vocabulary to be present at an NLM demonstration of their tool to support terminology management and development which is being considered as an option for HL7 ongoing management of vocabulary and project management. A report of the findings of this tool will be provided to the community through teleconferences over the next few weeks.

The Chief Technical Officer reported that:

- HL7 to date has benefited greatly from tooling developed by others but there are aspects of HL7's approach that are sufficiently unique that custom components now need to be developed as a priority.
- In the 2010 year, around \$220k was able to be appropriated but at this rate it would take about 15 years for current needs to be met (and the resulting solutions would by then be outdated). Addressing this problem and delivering required capability in a staged manner is a major focus of current activities.
- The intent is to continuing being symbiotic with US-VHA and UK NHS approaches.
- We are getting better. The 2009 normative edition of v3 is expected by October 2 and the 2010 normative edition is expected to be published by Q1/2010.
- There is also a strong demand for tooling to assist the consistent, efficient development and implementation of CDA artefacts.
- Work Groups continue to be encouraged to move to OHT products for maintaining their v3 artefacts. This will eventually become mandatory; so many more Work Group operatives will need to be trained and competent in the tools - if the tooling uptake is to be successful.

Action: When recommendations are identified within HL7 these will be reported back to IT14.

Responsible Person: Heather Grain (as the results are to be reported to Vocabulary and will be discussed on their calls).

ITS receive a lot of feedback from end users using the ITS, though most of the issues are not with the ITS and are either problems with the tooling (which generates the schemas) or the standard (where the rules for generation come from). One view was that this is a publishing responsibility to triage the issue and pass onto relevant committee. There seems to be a greater issue around quality assurance, ITS should develop quality criteria for publishing to use in triage.

There were a number of discussions and reports about tooling for creating better consistency in HL7 V3 and CDA artefact production. Current tooling makes it difficult to reliably create and publish conformant HL7 V3 artefacts.

The Connecting for Health contingent from the UK did a number of demonstrations of their HL7 v3 tooling which is open source and freely available through the Open Health Tooling organisation. This tooling is quite sophisticated and there is now a second release that adds significant functionality.

HL7 inc seemed reluctant to utilise the tooling from the UK, even though John Quinn had recently invited to the UK to inspect it and see how it was being used. There was some discussion about the tooling being UK specific rather than useful for general use and not fitting HL7 publishing requirements.

Proposed Action: Standards Australia and/or NEHTA assess the UK tooling for fitness of purpose for development of HL7 v3 messaging requirements in the future.

Action by: Standards Australia, NEHTA

37 Vocabulary

The vocabulary committee meeting had more than 70 people attending sessions through the week (Sunday – Friday).

37.1 Display Name Discussion

Laboratories are now sending LOINC and SNOMED-CT codes. SNOMED-CT has both a fully specified name which is often unsuited to direct care display or data collection, and synonyms and local terms as string names. There are variations in which name, if any is or should be included in the message.

There is a need to associate display text with the concepts in a value set. For the people who publish value sets and for terminologies that have more than one display name, it must be possible to identify which of the names are to be displayed in which case. HL7 currently has no position stated or solution offered to this problem.

The questions are:

- what should be included on the wire?
- which name to display – discussion considered that the display name is an issue for local display 'pick list' behaviour. The pick list has to be representations that are allowed designations (a constrained list) in the value set.

On a program by program basis you need to be able to assert your code set and your preferred display name. There is a need for a display management system to handle this problem in the manner appropriate to the organization.

Conclusion: User interface requirements and use cases for value sets and the terminology should be in a separate system, and is not covered within HL7.

Display name in V2 and V3 are intended to be the formal fully specified names as published in the terminology not the local name.

The names that people see when they view or collect data, is intended to be carried in the original text property of the datatypes.

Relevance to Australia: Vendors in Australia and IT14 should be aware of this decision.

37.2 Language Code Set

The current language codes used by ISO (639-3) tend to represent written languages rather than spoken languages which are a much larger set.

Language collection mechanism was discussed and there are proposals to include level of English proficiency as well as preferred language for healthcare. ISO have not yet published the OIDs for language, but have published the OIDs for country codes which are now used in HL7.

Modeling concepts of language included subsets that relate to utility such as spoken, non-verbal, written, non-verbal other etc. Additional rules may be needed to represent the concepts appropriately. The set should include all options and the sub-set based upon the use case.

Relevance to Australia: This could be an issue for representation of Aboriginal languages that should be considered both by IT14/6 and by NEHTA and AIHW.

37.3 H1N1 messaging vocabulary

Web site: www.phconnect.org

Questions can be logged at

www.phconnect.org/group/vocabularyandmessagingcommunityofpractice/forum/topics

A demonstration of this web site and the forms for reporting questions was provided. There was discussion on the terminology to be used e.g.: SNOMED-CT / LOINC vs ICD based classification. Epidemiologists at this point do not require SNOMED-CT or LOINC codes and therefore require mapping to their more general requirement. Canada has a similar process, using SNOMED-CT in the immune system finding area. There is also information collected on finding by method and by site.

Relevance to Australia: this information may be of interest to AIHW

37.4 Post coordination introductory discussion

There are inconsistencies in the construction of post-coordination messages. With the release of data types R2 data types able to express post-coordination there is an implicit or explicit compositional grammar and this is to be used as a string. This discussion concerns the build / mechanism for development and maintenance of the value set associated with post-coordinated concepts.

We are moving from a traditional information model approach to a description logic approach and we currently don't have the mechanisms in place to keep up with this either in the terminology (many missing elements in definitions, even those identified as fully defined).

In release format 2 there are IDs for intentional reference sets which could be used. There was discussion on whether HL7 need to deal with the mechanism for post-coordination in the value set processes or not. It was discussed whether it should be attempted to address this problem for SNOMED-CT only as a first step, to inform a solution that is general, a logical second issue would be with ICD.

This problem occurs both in V2 and V3 messages. In V2 there are only two kinds of conformance, enumerated extensional value set or the name of a code system. Conformance in v2 is through enumeration of the values permitted in a table. V2 would need significant modification to the conformance requirements. V2 conformance for country codes are achieved as a sentence that says 'use the ISO 3 character country codes'. This is a manual instruction to implementers.

It is proposed that we restructure V2 as well as modify V3. It is also vital that we liaise with IHTSDO to inform how they are addressing the issue from their perspective.

It was agreed that this is a real business case with increasing priority and that HL7 need to have a position of post-coordination in value sets

New Project: That a project scope statement be prepared to identify appropriate resolution of the process for applying the rules required for representation of compositional grammar in the value set machinery of HL7 (V2 and V3). HL7 need to have a position on conformance to value set constraints intended to be

populated by post-coordinated expressions. This project will consider an approach for SNOMED-CT to inform the later development of a generic solution.

37.5 Joint meeting with SOA

OMG to giving consideration to using ISO 11179 we are not taking advantage of things out there by building our own metamodels. ISO 11179 could be used and suggested updates provided to ISO on this topic to support HL7 requirements. The protection or direction of how we want things done is through formal policies and procedures, we've only gone through the HL7 OMG process twice, now is the time to evaluate what went well and what did not. We need to specify HL7's requirements. As a minimum we need OMG to reference HL7 normative artifacts. This doesn't mean that a different payload could not be used. This requirement is in our current documentation but is weekly worded.

Part 3 of 11179 (metadata registry) has endeavored to include some terminology, but it is not always in a way that will meet the needs to HL7. There are a lot of organizations using ISO 11179. This makes it possible to use these metadata repositories and restrictions with some additional functionality and we would not have to be pushing out our own home brewed tools.

This approach is consistent with the processes within CEN.

Jointly HL7 OMG look at what are the requirements for a vocabulary metamodel? There is concern that CTS2 does not deal with all the issues of the MIF structure. The metamodel contains the source of truth for how we deal with vocabulary. There is a need to clearly define what belongs in CTS2 that has to be captured in both use and structural requirements for HL7 artifacts but also how we get this represented in the publication process.

There is no complete definition of the vocabulary metamodel separate from the MIF. The argument that MIF is needed could be rephrased that the metamodel that is in MIF should be well defined as an implementation of that metamodel.

The CTS2 metamodel will be updated to cover known gaps and take that forward to OMG. Everything that we need is not currently there at the functional level.

Now that CTS is where it is and core principles is nearing completion. We would be looking for additional work participants. There is joint work with OMG being undertaken undertaking requirements gathering. We should bring in other vocabulary representations such as those administered by IHTSDO into the discussion. The metamodel should handle HL7 and other terminologies. Vocabulary should create own and maintain a metamodel for vocabulary independent of the SFM as it has wider utility.

Heather Grain to follow up with ISO on process for contribution to ISO 11179 review. Heather to report back to Vocabulary

Vocabulary is asserting responsibility for metamodel development. Vocabulary goes to the TSC with a project scope statement for this development, with InM as a co-sponsor.

SOA, MnM, SAEAF are in a maturing process and emerging governance processes are in discussion.

Proposed Action: Need to follow-up with Standards Australia on the ability to liaise with ISO 11179 review.
Action by: Heather Grain

37.6 Term Info ballot reconciliation and future

Ballot comments will feed back into IHTSDO and vocabulary will maintain the document. There is an intent that the ballot will be logged with DSTU of 8 - 12 months during which time terminfo will continue to function.

37.7 Harmonisation

The differences in the terminology model and content are primarily driven by the differences in the structure. The priority of this item was discussed. There is a maintenance issue – initial action will be to generate table 396 out of the OID

- It is acceptable that a standardized place that is consistent and where individual table content should not require a ballot. The repository could be used to replace the table declarations in V2. Vocabulary own table 396. There is a need to identify processes to support maintenance and recognize that this table is special in that it would not require a ballot to change content, but would require a vote in rim harmonization supported by the vocabulary committee.
- The rules for deprecating codes need to be sorted out and there will be conflicts.

Table 396 is being integrated into the OID registry. This is not yet complete. InM are happy that Vocabulary progress these changes.

The ideal state is that the concepts that are the same are linked together under the code system in which they are contained now. Taking care of table 396 is one aspect, the other aspect is that we would no longer publish V2 tables which are balloted and maintain them through the OID registry processes.

There is a need to make a case to the TSC that this is something that needs to be funded and resolved within a reasonable time period.

Requirement: to be able to produce the V2 tables from the resultant joint repository.

Of Interest to Australia: There is a need for IT14/6 to consider the implications or need to replicate this in Australia.

37.8 Terminology Choices

Should we consider requiring certain terminologies for a given concept.

Early in HL7 history, around 1997, we started thinking that we would standardise terminology in HL7. For example for this set of drugs we are going to use RXNorm, or for Diagnosis we will use SNOMED-CT. The decision was made to allow people to use different terminologies in the models. This has generated considerable difficulties as it means that an interoperable definition has not been given in our standards. We find ourselves creating data elements and you decide to use SNOMED-CT then the model and rules are different to if you use ICD in that same field and it does not support interoperability. You could have middle ground where you have to have identical characteristics eg: choose lab loinc for observation codes in lab messages, you could also use these codes in SNOMED-CT which are semantically the same concepts.

We have introduced problems through not making these choices in the beginning. There is the fact that making such hard choices it will have an impact upon whose terminologies get used and which don't get used. If a different terminology is adopted then they would be non-compliant if not using the required system.

There was support for the concept but further discussion was needed. Another view was presented that in the past the decisions made were appropriate at that time as there was insufficient clarity on single direction. It would be valuable to move in this direction.

It was agreed that Vocabulary define a process leading to the ability to assign a single HL7 preferred value set and/or code system (as defined in core principles) for specific coded attributes in HL7 standards (V2, V3, CCOW etc) and manage these preferences.

37.9 Core Principles

The core principles document defines the requirements for vocabulary inclusion and binding in messages. More than 70% of the comments from core principles work that are the responsibility of Vocabulary have been dealt with and the document will go forward. Terms from this work will be extracted into the international glossary activity and serve as a test of the harmonisation process.

37.10 Rules for compositional grammar / post-coordination.

Discussion on methods for establishing how to do conformance with post-coordination for HL7 occurred. This supports implementers and the community who are seeking a solution. A schema for post-coordinated constraints has been produced by the UK. This document will also be presented at IHTSDO. It was agreed that this topic does need to be progressed but that HL7 will be ready to collaborate with IHTSDO when requirements are made clear.

37.11 Best practice for conformance profiles

Generators and recipients of instances of these things need to be consistent in their understanding of meaning for interoperability. One of the mechanisms for this is to agree on the same vocabulary. /the association of a value set with a coded model within a particular context of use defines the vocabulary performance for that element.

There are different mechanisms for doing that assignment; you can use the V2 mechanism, by assigning a model in a ballot. That value set has to be used as the conformance description anywhere that model is used. We also have context binding where a value set comes out of the value set not constrained further than a concept domain and a jurisdiction makes an assertion that a value set is used for a concept domain.

E.g.: can be bound to two letter country codes, when a new release of these codes which occur periodically due to political and other world changes, our value set machinery allows those things to be picked up automatically so that people don't have to modify the value sets manually in their systems. There are places where this makes sense and others where it does not. Conformance requires the explicit statement of when this should occur, whether they are dynamic (and change as the value set content changes) or static where it is a specific value set.

Conformance agreed that the approach being adopted by Vocabulary meets their expectations.

Vocabulary three year plans represent our current work activities and this will be added to that plan.

37.12 CTS2 ballot reconciliation

There are a number of items from the ballot reconciliation that require a voting quorum of 2 co-chairs plus 5 additional members. Those items discussed with less than a quorum were reviewed and voted at this meeting.

Details of disposition of comments and votes are held in the disposition of ballot comments document. The comments were disposed in full, and the document will go forward as DTSU to the TSC with the intent to immediately work on a new release of this work to cover the significant comments and issues raised through the ballot process and result in a standard level document within the next 12 months.

Proposed Action: This work is highly significant to EHR initiatives in Australia and should be reviewed by NEHTA and if they consider appropriate it should be progressed to the Jurisdictions and major implementers.

37.13 IHE PCD Rosetta Terminology Mapping

Harmonized Rosetta Table Paul Schluter from GE gave an update on this project. They are now using the same nomenclature to express temperature and other measures. They are looking at message content and code constraints e.g.: if sending temperature it is only sent with Fahrenheit or Celsius. Allowed units of measure and allowed enumeration, so that messages can be checked to see if they are correct. Capturing these co-constraints allows interoperability between machines. They are intending to introduce more sophisticated testing over the years.

The harmonized Rosetta table started from the ISO nomenclature IEEE 11073 is in place and each vendor was asked to map their legacy and proprietary terms to the nomenclature. Additional terms were needed to cover nuance, but they were able to capture more than 90% of the terms used in the major gateways today and how each vendor would use them. The commonalities were identified, the units used were analyzed and an end table was produced which identifies official terms and the units permitted for each observation identifier. Wanted to be able to identify that some concepts have different types of measures. Measurement sites for ECG for example were identified.

This is intended to improve interoperability but also support research and clinical decision support. Will this impact upon clinical trials where the rules may be broken 'on purpose'. How prescriptive will these rules be? Every device shall comply to this, though they may have their own subset. Every EMR vendor is informed that you may get any of these items – you need to be able to deal with them. This is intended to be integrated into the conformance criteria. Both UCUM and IEEE codes are included in the mapping. The specific properties of the measure are included e.g.: % volume, or Length, time. This work also relates to alarm events e.g.: when reporting bradycardia the requirement to include the heart rate.

There is a need to harmonize this work with HL7, particularly in the terms used to describe components.

37.14 IDMP

There is a conceptual model for devices and medicinal products. ISO work items 11615, 11616, 11238, 11239, 11240, this work has been driven by ICH. Joined with HL7 comment only ballot held recently and there will be harmonization through pharmacy at HL7 and WG6 at ISO.

It was agreed common solution to aggregate these activities.

Proposed Action: Awareness and review of this activity would seem appropriate.

Of Interest to: NEHTA

37.15 Glossary

The Vocabulary Working Group undertook a practical harmonisation exercise with terms that have multiple definitions from the International Health Informatics Glossary. This session had robust and numerous input. The HL7 Vocabulary group decided that this was a valuable exercise and were supportive of the process.

Despite significant difficulties in the past HL7 have now allocated a member of the publishing committee to work with Heather Grain to incorporate HL7 terms into the international glossary and to establish for HL7 an agreed process for their participation in term harmonisation.

Further activity is still required to gain HL7 take up of the document registration and project management elements of the Standards Knowledge Management Tool.

Action: This activity will require further support from Australia to progress it.

38 Governance & Operations Committee

This is a Board-appointed committee that has oversight of the standards creation processes and their governance. It also published the HL7 International "Governance & Operations Manual" (GOM) Klaus Veil attended to pursue the issue with the ballot sign-up deadline not being in line with the ballot deadline. This voting procedure was recently introduced and has recently lead to HL7 Australia not being able to cast all its votes. The concern was supported by the US VA, which also undertakes a ballot preparation process.

The GOC is looking into different ways of resolving the issue.

Committee web site: www.HL7.org/Special/committees/gno/

Proposed Australian Action: A formal letter stating the concerns might be helpful...

Action by: HL7 Australia

39 Process Improvement Committee

This is a Board-appointed committee that collects member input, concerns and complaints on the HL7 International processes. It feeds into various areas, including the committee "Decision Making Practices" (DMP) documents and the GOM.

Klaus Veil pursued the issue with committee meetings being cancelled due to co-chairs not being present, especially at non-US Working Meetings. Apart from encouraging the co-chairs (and their employers) to attend non-US WGMs, PIC has also recommended that committees appoint "interim Co-chairs" when it is unclear if the regular co-chairs can attend the WGM. PIC is considering recommending an amendment to the Decision-Making Procedures (DMP) for each of the committees.

Committee web site: www.HL7.org/Special/committees/pi/index.cfm

Proposed Australian Action: Support PIC in establishing governance measures to ensure committees can meet regardless of co-chair presence

Action by: HL7 Australia, Non-US WGM Promotion Task Force

40 Affiliate Due Diligence Committee

This is a committee that evaluates applications by countries to become HL7 Affiliates, audits Affiliates' statuses and makes recommendations to the HL7 International Board regarding current and future Affiliates.

The Committee is currently updating its mission/procedure documents (volunteer: Klaus Veil) and had recently critically assessed the recent Affiliate applications by Russia and Hong Kong. The Committee is also looking at outreach programs for lapsed Affiliates (eg Malaysia, Lithuania, etc.) as well new Affiliates in Asia and the Countries of the former Russian Federation

Proposed Australian Action: Support ADDC's outreach to HL7 Malaysia

Action by: HL7 Australia

41 International Mentoring Committee

This committee supports Countries establishing their Affiliates. Support initiatives for Puerto Rico, the Philippines and South Africa were outlined and actioned.

Proposed Australian Action: Support IMC's initiative for the Philippines

Action by: HL7 Australia

42 ISO/IEC JTC1 Liaison over OID Registry Communication

As the liaison officer between JTC1 and TC215, Richard Dixon Hughes sought out and held discussions with Ted Klein, who manages the HL7 OID registry, over the current problems in getting active liaison established between TC215/WG3, HL7 and the relevant experts put forward by JTC1/SC6 and ITU-T SG17 over the proposed TC215 standard on XML exchange of OID information between OID registers in the health sector. Ted indicated his willingness to help at the technical level and Richard indicated that he would discuss it further with Heather Grain and try and establish technical communication between all of the relevant parties.